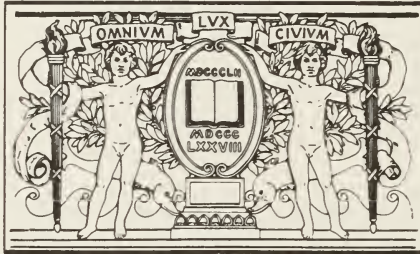


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# Distribution in the United States

TRENDS IN ITS  
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## PREFACE

THE COMMITTEE ON DISTRIBUTION, of the American Section—International Chamber of Commerce, was requested to prepare and submit a brief report on Distribution in the United States for consideration at the Sixth Biennial Congress of the International Chamber of Commerce, to be held in Washington, D. C., in May, 1931.

In its preparation it has been necessary to collect, analyze, and appraise a considerable amount of data, in a relatively short period, considering the scope of the subject and the complexities and variations in viewpoint involved in its study.

It is to be regretted that the forthcoming tabulation of data of the 1930 Census of Distribution has not been available for consideration in the preparation of this report, but there is prospect that by the time the Congress convenes much of the data will have been published which should be of constructive value in the discussions at Washington.

Material assistance has been given the Committee by the staff of the Domestic Distribution, Manufactures, Agriculture, Transportation and Communication, and Trade Association Departments of the Chamber of Commerce of the United States; by the Bureau of Foreign and Domestic Commerce and the Bureau of the Census, of the Department of Commerce; by the National Industrial Conference Board, National Bureau of Economic Research, and other research organizations.

Extensive use has been made of the published material of Dr. Paul H. Nystrom, Prof. Paul D. Converse, Dr. E. Dana Durand, Dr. W. I. King, Dr. L. D. H. Weld, Prof. Harry R. Tosdal, Dr. Paul T. Cherington and many other authorities on the subject.

Acknowledgment and appreciation due to all of these, and to others who have directly or indirectly contributed, is hereby expressed.





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# DISTRIBUTION IN THE UNITED STATES

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THIS REPORT WAS originally prepared for the primary purpose of informing business men and economists in foreign countries of basic and elementary distribution data relating to the United States. The plan was to limit its contribution to the delegates attending the Sixth General Congress of the International Chamber of Commerce in Washington, May 4 to 9, 1931.

Those who had occasion to study the report prior to the Congress, however, have recommended that it be printed and made available to observers and students of distribution in this country. The Domestic Distribution Department of the Chamber of Commerce of the United States, accordingly, has had the report printed in its entirety.

It must be borne in mind that it contains some information that may appear elementary to those familiar with our distributive system, but this was necessary in order to give a rounded-out picture. At the same time, the report orients the facts underlying a number of schools of merchandising thought and varying types of distributive agencies, and supplies in concise form the background to understand properly the basis of our distributive mechanism.

FRED LAZARUS, JR., *Chairman*  
*Domestic Distribution Department Committee*  
*Chamber of Commerce of the United States*

---

THIS REPORT is one of three prepared for the purpose of providing a basis of comparison of the significant characteristics and trends of production, trade, and consumption in the Continental United States with those in other countries. This report deals only with that branch of economic activity generally termed Distribution.

It is clearly impossible in a brief report to present a complete picture of Distribution. Therefore, only the most significant characteristics and trends will be dealt with.

The method of attack on the subject must necessarily be analytical and objective. Every effort has been made to secure and analyze essential facts and to draw impartial conclusions as to trends, uncolored by any existing preconceptions or opinions of social or political origin as to the merits of various methods of organizing distribution or as to their bearing on the relative fortunes and status of various groups in the country. So far as possible the facts will be so presented as to facilitate comparison and the terminology will be made as definitive as possible in order to minimize differences in interpretation.

The report does not attempt to deal specifically with the conditions brought about by the depression in business existing since

the fall of 1929, in the belief that past experience indicates that, in due time, recovery will come and the trends which have developed in recent years will be resumed. There are many indications that the depression has tended to emphasize and focus attention on the essential character of the principles underlying the trends as developed from the facts presented herein.

“Distribution”, as discussed in this report, covers the various activities and processes involved between the production of goods in final form for use and their delivery to and acceptance by consumers.

The concept under which it is herein treated may be stated as follows:

Fundamentally the very existence of all business organization and of all business activities is based on the economic necessity of fulfilling the wants of ultimate consumers or users, or supplying them with goods or services which they desire and may be led to purchase. In the last analysis, it is the effective desire of consumers as expressed in their purchases which direct and regulate productive activities, both of society as a whole and of its individual elements.

The successful and continued output of raw or manufactured goods or of services involves both production and distribution activities. The efficient performance of the distribution activities through whatever may be the most effective forms of organization and operation is both essential to and dependent on the efficient performance of the production activities. There is a particular and vital interdependence between production and distribution activities, not always recognized, but always existing, which, in the general interest, requires a high degree of coordination of all the agencies and activities involved.

Briefly stated, the distribution function includes the responsibility for interpreting to the production function the specific needs and capacity of the effective and potential present and future market; for cooperation with the production function in creating effective demand for the goods to be produced and in the coordination of effort required to assure the production, sale, and delivery at the time and place desired, of goods which are satisfactory to the consumer, at prices which will insure the development of maximum demand at least expense and with reasonable profit.

This concept and method of approach may be opposite to that generally prevailing; largely due, perhaps, to the fact that the thinking of all except consumers—and their thinking, when they are employed in production or distribution functions—is primarily concerned with the maximum production or distribution of the particular goods which they produce or distribute. Their primary concern really should be to fit their function into the economic mechanism that supplies consumers.

In order to do this they first must know where the consumers are, what they consume, and in what quantity; also, they must know the methods of operation of the mechanism which stimulates and supplies the consumers' requirements. Such knowledge is necessary in order that their own planning and activities may effectively be correlated with the general economic mechanism.

Therefore, it would appear that the primary responsibility of distribution agencies is to allocate and evaluate consumption, or demand. Errors in carrying out this responsibility inevitably are reflected back through all the agencies concerned in supplying specific consumption, resulting in waste either through overproduction or underproduction. Accuracy in carrying it out should guide and regulate production, in the general economic interest.

In order to maintain an objective approach in analyzing the characteristics of and trends in distribution in the United States along the lines indicated, the report deals sequentially with the major characteristics of the market of the United States as a whole; with the consumer market; with its consumption of commodities; with the agencies involved in supplying these markets; and with the methods by which they are supplied; and similarly with the industrial market, agencies and methods.



# I. GENERAL MARKET FACTORS

## Area and Population

THE AREA of the continental United States is approximately 3,000,000 square miles. Its population in 1930 was 122,775,046; giving a population density of over 41 per square mile. The increase in population by decades has been:

TABLE I

21% from 1900 to 1910
15% from 1910 to 1920
16% from 1920 to 1930

(See Appendix I)

About one-quarter of the gain for the last decade was accounted for by the States of California and New York, which made individual population gains of 65.7% and 21.2%. The gain by states is shown in Appendix II.

The population density by states varies from less than 1 per square mile in Nevada to 644 per square mile in Rhode Island.

Nearly 50% of the population is concentrated in 14 northeastern states, comprising about 14% of the area of the United States, located north of the Ohio and east of the Mississippi rivers; 21% in the 12 states east of the Mississippi and south of the Ohio, or about 15% of the area; 23% in the 19 states between the Mississippi and the Pacific Coast states, in 60% of the area; and 7% in 3 states on the Pacific Coast, in 11% of the area. (See Appendix III.)

## POPULATION TRENDS

THE TREND of population growth is toward the larger centers. The United States Census Bureau has classified as "urban" those communities of over 2,500 population, and as "rural", those of less. The per cent of urban to total population has been, by decades:

TABLE 2

40.0% in 1900
45.8% in 1910
51.4% in 1920
56.2% in 1930*

---

\* The 1930 classification has been made on a basis slightly different from that of previous years, but the figures are broadly comparable.

In 1930 there were 93 cities of a population of 100,000 or more, representing 29.6% of the total population. The increase for these cities over their 1920 figures was 32%. There were 283 cities of between 25,000 and 100,000 population, representing 10.5% of the total population, which show an increase of 37.6% over their 1920 figures. The combined total of these two groups, 363 cities, is over 40% of the total population, and their combined increase is 67% of the total increase for the country. (See Appendix IV.)

The cities in the group with a population of 25,000 to 100,000 have grown at a faster rate than those having over 100,000 population. The suburban communities adjacent to the larger cities, many of which are included in this group, have grown most rapidly. There appears to be a definite trend toward suburban residence, largely due to improved public and individual transportation facilities and to expansion of business districts in the larger cities. This trend has an influence towards creating secondary distribution centers for food and convenience goods in and near the larger centers.

#### RACIAL CHARACTERISTICS

IN 1920, 90% of the population was of the white race, nearly 10% negro and less than one-half of one per cent of other races. The percentage of negroes has been decreasing:

TABLE 3

	White	Colored	All other
1900.....	87.9%	11.6%	0.5%
1910.....	88.9	10.7	0.4
1920.....	89.7	9.9	0.4

About 35% of the white population was either foreign born, or native with one or both parents foreign born. Recent immigration restrictions are tending progressively to reduce this percentage. The fact that there are nearly 1000 foreign language newspapers published in the United States indicates some degree of racial cleavage but the effect of this is evident largely within particular cities or areas, and is tending to lessen in relative importance. One language is in general use.

#### OCCUPATION TRENDS

ABOUT 38% of the population is gainfully employed; this percentage has been practically constant for more than twenty years. The marked increase in the productivity per man in agriculture, manufacturing and mining as well as in transportation is releasing an increasing proportion of the population to the field of trade and to professional and other services.



Due to difficulty in accurately classifying certain groups of those gainfully occupied, authorities differ in their estimates of employment by occupation, but the estimates of all indicate a decrease in the proportion of workers in the production occupations, while there is a substantial increase in the proportion engaged in distributive and service functions.

Changes in the relative percentages of the total population by major occupations, are estimated by the National Bureau of Economic Research as follows:

TABLE 4

	Manufacturing	Agriculture	Mercantile
1909.....	10.6%	9.6%	4.0%
1914.....	10.8	8.9	4.2
1919.....	12.2	8.5	4.3
1923.....	11.1	7.7	5.0
1927.....	10.6	7.2	5.2

### Wealth

FOR THE purposes of this report wealth is defined as the estimated book value of the physical properties contained in the United States. It probably approximates, but does not exactly coincide with, the titles to property in the several states of the United States. It does not include intangible wealth, such as stocks or bonds, which are shares in or liens on aggregates of physical goods.

The Census Bureau places the wealth of the United States at:

TABLE 5

	Total	Per capita	
		Current dollars	1913 dollars
1900.....	\$89,000,000,000	\$1,165	\$1,440
1904.....	107,000,000,000	1,318	1,510
1912.....	186,000,000,000	1,950	1,950
1922.....	321,000,000,000	2,918	1,885

Appendix V shows the estimated classification by form of wealth for these same years.

There is no official estimate of wealth available since that for 1922 which will permit comparisons with these data. However, the National Industrial Conference Board places the wealth of the United States at \$360,000,000,000 in 1928; or \$3,000 per capita in current dollars, and \$2,140 in 1913 dollars, as shown in Table 6.

It has been estimated by various authorities that for the year 1930 the national wealth may approach \$400,000,000,000; about \$3,250 per capita in current dollars, or \$2,620 in 1913 dollars.

While official data on national wealth since 1922 are not available, there can be little doubt that there has been a rapid increase in the physical wealth of the country, as measured in utility. To a large extent it represents the great increase in the use of capital or durable consumers' goods.

**TABLE 6**

Real property (exclusive of railroads and public utilities) .....	55.0%
Personal property .....	12.4
Merchandise and industrial products .....	11.3
Railroads and public utilities .....	11.0
Equipment of farms and factories .....	7.6
Miscellaneous property .....	2.7
	100.0%

It is clear, however, that income has a larger influence on the distribution of goods and use of services than has wealth, because income depends, in part, on the current manner and the stage of the development of the utilization of the nation's resources.

### Income

THE TERM "realized income" is used to express the total annual income of individuals, excluding increment in the value of goods, securities or property.

The National Bureau of Economic Research has estimated the national income as follows:

**TABLE 7**

	Total	Per capita	
		Current dollars	1913 dollars
1910 .....	\$31,000,000,000	\$340	\$350
1915 .....	37,000,000,000	371	365
1920 .....	74,000,000,000	695	353
1925 .....	82,000,000,000	712	421
1928 .....	89,000,000,000	749	452

The per capita income increased 120%, while the *purchasing power* (as expressed in 1913 dollars), increased 29%, from 1910.

The estimate by years is shown in Appendix VI and the apportionment by sources of income in Appendix VII.

### TRENDS IN INCOMES

DURING the periods covered, the share received by entrepreneurs, or those whose principal occupation is the conduct of an enterprise which they control, decreased from 48% in 1910 to 43% in 1928. The share of employees increased from 52% in 1910 to 57% in

1928, although for 1917 the share received by each was approximately 50%. (See Appendix VIII.)

The average annual earnings of salaried employees and wage earners was estimated as follows:

**TABLE 8**

	Salaried employees		Wage employees	
	In current dollars	In 1913 dollars	In current dollars	In 1913 dollars
1910.....	\$1,002	\$1,035	\$552	\$568
1915.....	1,096	1,064	582	564
1920.....	1,740	846	1,273	612
1925.....	1,950	1,126	1,176	680
1927.....	2,084	1,220	1,205	705

This table indicates that in current dollars, average salaries for 1927 were 107% more than those for 1910, while average wages were 118% more.

The purchasing power (income as expressed in 1913 dollars) increased, from 1910 to 1927, 18% for salaried employees and 24% for wage earners.

## II. THE CONSUMER MARKET

### General Character of the Market

FOR THE PURPOSE of this report "consumer goods" are considered as those generally sold through retail channels to the ultimate consumer for personal or household use or consumption.

The "consumer market" is made up of the more than 122,000,000 inhabitants of the United States, every one of which is a consumer in varying degree, as evidenced by the purchases by or on behalf of each, of necessities, comforts, conveniences and luxuries in accordance with the ability and desire to purchase.

The consumer market, considered as a whole, is made up of the forty-eight states, knit together by rail, motor and air transportation systems, as well as by mail, air-mail, telegraph and telephone communication systems. There are no tariff or trade barriers between the states. Interstate trade is protected by the federal constitution and federal laws from unjust discrimination by individual states. Business customs, on the whole, are similar throughout the states. There is a common business language, a single monetary system and uniform currency. Thus, there exists maximum facility for the transaction of business and movement of goods throughout the country unhindered by state boundaries. These all contribute to a high degree of flexibility of distributive operations, limited only by cost and service considerations.

While these factors common to all parts of the United States tend to make it an economic unit, in reality the United States is a composite of many markets. When considered from the viewpoint of marketing specific commodities there are a number of modifying factors which must be taken into consideration.

While, in general, the population is mixed throughout the forty-eight states and is not separated as to language or race by state boundaries, racial traditions and influences in certain parts of the country, particularly in sections of the large cities, affect the local markets for particular commodities or grades of commodities. The variation in climatic conditions in different parts of the country has measurable effect on the market for certain commodities. Certain local habits and customs, or even prejudices, also affect the demand for particular types of goods. In the marketing plans and processes each local and individual element should be evaluated and dealt with.



The most significant factor for the measurement of the market for consumer goods either as a whole or as to its constituent elements is the economic status or purchasing power of the population.

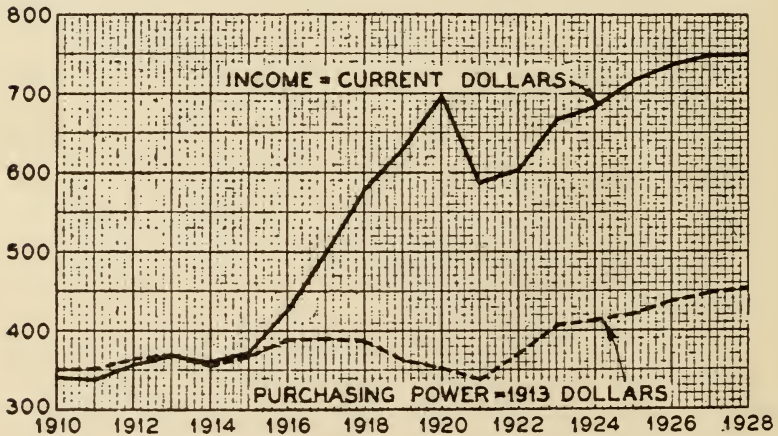
### Consumer Purchasing Power and its Utilization

THE *per capita income*, as shown by Table No. 7 and Appendix VI was estimated at \$749 in 1928—more than double that of 1913.

The *per capita purchasing power*, in terms of 1913 dollars, was estimated to be \$452 in 1928—an increase over 1913 of 23%. As compared with 1921, the increase is practically 33%.

This substantial increase in per capita purchasing power, which has taken place since the war years, explains to a considerable degree the rapid expansion of the market for convenience, comfort and luxury goods during that period. These changes are shown graphically as follows:

TABLE 9



A composite of estimates of several authorities roughly indicates that the income of individuals in the United States for 1928 was utilized as follows:

TABLE 10

Retail purchases.....	55 to 65%
Leisure activities, recreation, amusement, travel and cultural development.....	12 to 15%
Housing.....	10 to 12%
Health maintenance, professional and other services and miscellaneous expenditures.....	4 to 5%
Savings.....	8 to 10%

100%

## Consumer Retail Purchases by Commodity Lines

THE LARGEST item in Table 10 is that of retail purchases of merchandise, or the commodities sold to the consumer market. The retail sales of consumer goods were estimated to be approximately \$58,000,000,000 for 1928, or per capita sales of \$486 in current dollars and \$299 in 1913 dollars.

Appendix IX shows the estimate by years of total and per capita retail sales from 1909 to 1928. In terms of 1913 dollars, the per capita retail sales for the three years, 1926 to 1928, inclusive, averaged 35% more than for the three years 1909 to 1911 inclusive, closely corresponding to the increase in purchasing power.

The Census of Distribution, taken early in 1930, is now being tabulated and within a few months authentic and comprehensive figures will be available to show for 1929 the total amount of retail sales in the United States, the total sales by principal lines of commodities, the place in which they were sold and through what type of retail outlets they were sold.

### TRIAL DISTRIBUTION CENSUS

UNTIL these figures are available, the best comprehensive source of detailed information as to the distribution of retail sales by commodity lines is the data secured in a trial Census of Distribution taken in 1926, in eleven representative cities, ranging in population from 25,000 to 3,000,000; each city located in a different part of the United States.

This trial census showed the percentage of total retail sales by principal commodity groups, as follows:

TABLE 11

Food .....	28.5%
Clothing .....	24.3
Automotive .....	12.1
Furniture and House Furnishings.....	9.8
Building materials and Heating supplies...	5.0
Drugs and Toilet goods.....	3.3
Coal and Wood.....	2.0
Hardware, Tools and Machinery.....	2.0
Jewelry and Silverware.....	1.7
Cigars, Cigarette and Tobacco.....	1.7
Office Equipment and Supplies.....	1.4
Musical instruments and Radio.....	1.4
All Others.....	6.4
	<hr/>
	100%

Appendix X shows, for the eleven cities, a per capita breakdown by commodity lines in greater detail.

## Distribution of Consumers by Size of Towns

THE percentages of the *retail sales dollar* shown in Table 11 do not represent a true division of the *consumer's dollar*, or of local consumption, since the sales in each city are made not only to inhabitants of the city, but to all who enter the stores. Therefore, an undeterminable portion of these sales was made to residents of other nearby, or more or less distant, communities, while local consumers purchased some goods elsewhere.

In general, the country population supplies most of its requirements for food and staple commodities in the nearby village. A large part of retail purchases of clothing, home furnishings and the higher unit value goods is made in the larger towns and cities. The trading areas, therefore, vary for different types of stores according to the class of commodities sold; grocery stores draw their trade from a limited radius, while specialty and department stores draw from a much wider area.

It is apparent, therefore, that the size of communities and their proximity to each other have considerable influence on the consumer market centers and sales areas for different classes of commodities.

### RURAL AND URBAN

THE significance of this will be apparent in the following rough estimate of the distribution of the total population among the rural districts and the towns of various sizes:

TABLE 12

25% living on farms in the country.
4% in 100,000 hamlets under 250 population.
15% in 21,000 villages between 250 and 2,500 population.
16% in 2,600 towns and cities between 2,500 and 25,000 population.
10% in 270 cities between 25,000 and 100,000 population.
30% in 93 cities of more than 100,000 population.

---

100%

While about 44% live in the country and in places of less than 2500 population, many of the smaller communities are of suburban or semi-suburban character, in the sense that they are responsive to the influence of the nearby towns or cities and their inhabitants trade in these towns or cities for many of their requirements. With the increase within recent years in the use of the automobile and good roads the number of really remote communities has shrunk to small proportions.

It is probable that most of the retail outlets which sell other than necessities are located in perhaps 3,000 towns and cities. Certain



trade area studies indicate that nearly 75% of the entire retail trade of the country in all consumers goods, other than food, is done in less than 1,000 principal cities.

### **Distribution and Use of Individual Consumer Purchasing Power**

CONSIDERATION has been given to the per capita income and purchasing power of the population as a whole and it has been developed that, on the average, the purchasing power and retail sales per capita have increased between 1921 and 1928 by approximately one-third.

There has also been shown the relative amounts by principal commodity lines which this purchasing power absorbs, and there have been pointed out certain variations in the distribution of the population as between communities of various sizes and their effect on the allocation of areas of demand and centers of supply for the commodities purchased.

#### **VARIATIONS IN STANDARDS OF LIVING**

IN ORDER to appraise particular communities as markets for the various lines of consumer goods, consideration should be given to the distribution of purchasing power among individuals and families, classified in strata in accordance with variation in their standards of living and ability to purchase.

Below is shown an estimated classification of the population for 1927 by "Standards of Living" groups compiled from Dr. Paul H. Nystrom's "Economic Principles of Consumption":

**TABLE 13**

Group	Approximate population of group	Percentage of total population
"Public charges".....	1,000,000	0.8
"Tramps, work-shy, etc.".....	2,000,000	1.7
"Poverty level".....	7,000,000	5.9
"Bare subsistence".....	12,000,000	10.1
		<hr/>
"Minimum for health and efficiency".....	20,000,000	16.8
"Minimum comfort".....	30,000,000	25.2
"Comfort".....	20,000,000	16.8
"Moderately well-to-do".....	15,000,000	12.6
		<hr/>
"Well-to-do".....	10,000,000	8.4
"Liberal standards of living".....	2,000,000	1.7
		<hr/>
Total population.....	119,000,000	100

It is estimated that the "Public Charges" and the "Tramps, Work-Shy, Etc.," groups, amounting to 2.5% of the population, are practically supported by society as a whole. The "Poverty Level" class,

amounting to 5.9%, is perhaps 50% supported by society. The "Bare Subsistence" class, amounting to 10.1%, live largely on their own meager incomes, but lack many of the necessities and most of the comforts and conveniences of life. The total of these four groups represents 18.5% of the total population.

The group "Minimum for Health and Efficiency", amounting to 16.8% of the population, represents a generally accepted minimum standard of living in the United States. The "Minimum Comfort", the "Comfort" and the "Moderately Well-to-do" groups represent more than one-half the total population. These four groups together represent over 71%. They represent the great bulk of the consumer market for all classes of goods; their consumption or use of necessities, comforts, conveniences and luxuries increasing as to quantity, quality and price with the advance in their standard of living.

**TABLE 14**  
**EXPENDITURES REQUIRED FOR VARIOUS STANDARDS**  
**OF LIVING**

From pages 277 to 300 of the "Economics of Consumption" (1929) and the table on page 24 of "Economics of Retailing" (1930), the following estimates of Professor Nystrom have been constructed:

No. of persons (1929 costs) in Standards of Living groups	Indi- viduals	Man and Wife	Man Wife 1 Child	Man Wife 2 Chil- dren	Man Wife 3 Chil- dren
10,000,000 The (3) Public Charges, Tramps and Poverty groups.	x	x			
12,000,000 "Bare subsistence" group.....	\$600	\$900	\$1,200	\$1,500	\$1,800
20,000,000 "Minimum for health and efficiency"....	800	1,200	1,500	1,800	2,100
30,000,000 "Minimum comfort" group.....	1,000	1,500	1,800	2,200	2,400
20,000,000 "Comfort".....	1,200	1,800	2,200	2,600	3,000
15,000,000 "Moderately well-to- do".....	1,800	2,700	3,200	3,700	4,200
10,000,000 "Well-to-do".....	3,000	4,500	5,500	6,500	7,500
2,000,000 "Liberal".....	5,000	7,500	8,700	10,000	12,000
<hr/> 119,000,000					

The "Well-to-do" and the "Liberal Standards of Living" groups, amounting to over 10% of the population, represent the higher levels of purchasing power and expenditure for all classes of consumer goods.

**INDIVIDUALS AND FAMILIES**

TABLE No. 14, compiled from the same source, shows that various standards of living apply under the same incomes, due to differences in size of family. A *single* individual may maintain a *fairly high standard* of living at a sum which would provide a very low standard of living for a family.

An individual with an income of \$1,800 a year may enjoy a "Moderately Well-to-do" standard of living. A man and wife living on the same income would have a "Comfort" standard; a man, wife and one child on the same income would have a "Minimum Comfort" standard; a man, wife and three children would get no more than a "Bare Subsistence" from this income.

**TABLE 15**  
**EXPENDITURE BY STANDARDS OF LIVING GROUPS**

Per cent of Population	Group	Estimated percent of income expended for				Per cent available for other uses
		Food	Clothing	Housing, fuel and light	Home Furnishings	
0.8	"Public charges" . . . . .	x	x	x	x	x
1.7	"Tramps, work-shy," etc. . . . .	x	x	x	x	x
5.9	"Poverty level" . . . . .	Over 50	x	x	x	x
10.1	"Bare subsistence" . . . . .	45-50	10-12	20-21	4	20
18.5						
16.8	"Minimum for health and efficiency" . . . . .	40-50	12-15	20	5	18-22
25.2	"Minimum comfort" . . . . .	36-40	16-17	20	5- 6	22-24
16.8	"Comfort" . . . . .	30-35	18-20	20-22	5- 6	24-27
12.6	"Moderately well-to-do" . . . . .	25-30	20-22	20	6	28-35
71.4						
8.4	"Well-to-do" . . . . .	20-25	18-20	20-22	5	30-40
1.7	"Liberal Standards of living" . . . . .	Under 20	Under 15	20-25	5	40-50
10.1						
100						

Source: Nystrom, "Economics of Consumption" (1929).

Table No. 15 shows the estimated *percentage* of income expended by each of these standards of living groups for the principal necessities of life, and indicates the probable percentage of the residue of the income in each level which is available for the purchase of comfort, convenience and luxury goods, for leisure activities, and for savings.

These estimates of Dr. Nystrom are based on a comprehensive analysis and correlation of data from all the generally accepted studies of many authorities, made over a period of many years, as to income, consumption, family budgets and costs of living.

### COMMODITY PURCHASES IN RELATION TO INCOME

IT WILL be noted that the proportion of income expended for food tends to decrease with increase in income, while expenditures for clothing increase up to a certain point and then decrease. In general, the proportion devoted to housing is fairly constant until the "Well-to-do" and "Liberal Standards of Living" classes are reached, when higher grade houses, summer homes, etc., tend toward an increase in this class of expenditure. The proportion expended for home furnishings is fairly constant, although tending to decrease slightly in these two higher classes.

These classifications are significant in the following respects:

1. The size of family, considered in relation to its income, determines the standard of living group in which it must be classified.
2. While *all* classes require food, clothing and shelter, the quantity and quality of these purchased by individuals or families tends to increase with progress into the higher living standard levels.
3. With increase in income and standard of living level there is a consistent increase in the proportion in excess of that spent for necessities, and which is available for the purchase of more and better comforts, conveniences and luxuries and for the greater enjoyment of leisure.
4. But on the other hand, there are fewer people in each successive higher income level and a consequent gradual narrowing of the market for the higher priced comfort, convenience and luxury goods as the quality and unit price values increase.

The determination of how many of each stratum are in each community is essential to proper allocation and evaluation of the quantity and quality of necessity goods and of the convenience, comfort and luxury goods which the community uses or may be influenced to purchase, and also to the effective selection and direction of advertising and sales effort.



Recognizing the need for such facts, manufacturers and distributors, advertising agencies, magazine and newspaper publishers and public utilities, have developed for their own use various methods of evaluating the relative purchasing power of the population by states, counties and communities. The break down of population, income tax returns, automobile registrations, circulation of magazines, and other obtainable factors, have been utilized and correlated. Some of the public utilities have made, and revise periodically, studies by homogeneous areas in all large cities, classifying premises occupied by rental rates, which indicate income and standard of living strata of the population in each area.

There is real need for organized coordinated data along all these lines for the general use of distributors, in order to facilitate more accurate market measurement.

### **Changes in Standards of Living**

NO PICTURE of consumer markets of the United States can be complete or in proper balance without consideration of the tremendous changes which have taken place during the last few decades, and especially since the war, in the standards of living. It is not the changes themselves but the rate at which these changes have been taking place which is most significant.

The substantial increase in individual incomes and purchasing power is both an effect and a cause of greater productivity and production efficiency. With higher wages and lower production costs has come higher buying power, more widely spread among our population than ever before. With increased production per employee considerable numbers have been released and engaged in service industries, many of which have been developed as to technique and facility to a degree approaching a professional status.

This has tended to increase the income and purchasing power of those in the service industries,—thus still further widening the market for the goods which can be produced with increasing efficiency and at lower costs by the production industries.

### **RESULTS OF PRODUCTION EFFICIENCY**

WITH greater production efficiency has come greater leisure in which profitably to expend a greater proportion of income for recreation, entertainment and cultural development. While this has not decreased the aggregate expenditures for necessities materially, it has tended to reduce the percentage of income expended for necessities, and a larger percentage is devoted to the purchase of optional

goods and services and to the enjoyment of leisure activities, leading to greater satisfaction with life.

## **HOUSING**

WHILE the proportion of income devoted to housing has not changed greatly, with increase in income and higher standards of living more widely spread, there is better housing of the population. It is estimated that 45% of the homes are owned, and that 60% of these are free from financial encumbrance. The great increase in heating facilities, bath rooms, lighting, labor saving devices and other conveniences and comforts testify to marked improvement of homes and home life.

In modern building, particularly in the larger cities, there has been a marked trend toward smaller living quarters equipped with many built-in conveniences and facilities, which has changed the number, type and character of equipment and furnishings used.

## **LIVING HABITS**

THERE is also an increasing tendency toward taking meals in restaurants, hotels, etc. It is estimated that of all food sold at retail 20% is sold at such places. This has a noticeable effect on living habits even within the home. These changes have brought new products and new industries to satisfy the increasing appreciation of the value and enjoyment of better living.

## **RECREATION, TRAVEL AND AMUSEMENT**

THE utilization of greater leisure time has had an important effect on the habits of life, and the 12% to 15% of income devoted to the pursuit of leisure activities in the way of recreation, amusement, travel, adult cultural development, etc., is testimony of its importance in the social and economic life of the country, and it has created new industries and markets.

## **HEALTH AND PROFESSIONAL SERVICES**

THE 4% to 5% of income devoted to health maintenance, professional and other services, etc., finds expression in the better average health through regular physical examinations in schools and other preventive measures, better hospital and home nursing service to care for illness; in professional advice in economic activities, etc.

## **SAVINGS**

IT HAS been estimated that 8% to 10% of the income of individuals is devoted to savings. The number of savings bank depositors increased from 8% of the population in 1900 to 12.5% in 1928. The

increase in the average savings per depositor was 70%. Building and loan association holdings per member increased 86% from 1900 to 1927. Life insurance outstanding in 1928 amounted to \$542 per capita as compared with \$92 in 1900.

It is impossible to estimate accurately the stock and bond holdings in corporations, but they have spread widely of recent years, and a substantial portion of individual savings is invested in such securities. Many large industrial and public utility organizations have a substantial and an increasing employee and customer stock ownership.

## **EDUCATION**

THE FEW facts given above illustrate the importance of these changes in living standards and expenditures on the industrial and social life of the country. That the trend is not wholly materialistic is indicated by the increase in expenditure for the education of youth, which appears to be increasing more rapidly than expenditure for other social services.

The expenditure for public schools practically doubled between 1920 and 1926, while the number of those graduating from high schools and academies has increased nearly 90%. The number enrolled in teachers colleges, universities and professional schools has increased from 1920 to 1926 by 75%.

## **COMPETITION FOR THE CONSUMER'S DOLLAR**

THESE changes in the habits of life and of expenditure have stimulated and have been stimulated by new products and new uses for old products. This has led to more intense competition between producers and distributors for disposing of their products and has resulted in dynamic changes in the nature of the competition.

The struggle between producers of similar commodities has largely given place to a struggle between manufacturers of differing commodities representing alternative claims for a share of the consumer's dollar. This has brought about a "buyers market", and the consumer now has an initiative and final voice in determining what kind and how much of the various commodities can profitably be produced.

These changes have forced some of the older industries into a secondary position while new industries have increased in importance from both the social and economic point of view.

## **AUTOMOBILES**

PROBABLY the most outstanding new industry from the viewpoint of its wide effect upon industry, trade and social life is the automobile. In 1900 there were a negligible number in use. Recent



figures indicate that in 1930 there were in use 23,122,000 passenger automobiles and 3,380,000 motor trucks—or one passenger automobile to each 4.6 of the population and one motor truck to each 36. This has brought about an almost revolutionary change in living habits. It has made the population mobile.

In many occupations, such as farming, the automobile is a tool—not a luxury; the farmer's radius of business activity has increased from 5 to 10 times. With all owners of motor cars it has widened their horizon and their sphere of business and social activities.

It is a potent factor in the utilization of leisure time, as evidenced by the 40,000,000 tourists travelling about the country in a year, becoming familiar with new places and with how other people live, to mutual advantage.

The industry has created new employment for 800,000 people in the factories and over 2,000,000 in operating and servicing the passenger cars and trucks. The motor truck is becoming an increasingly important factor in the transportation field.

The fact that automobiles and accessories represent the largest item of retail sales except food and clothing not only indicates its importance from a business and social viewpoint, but also presents a most striking example of competition for the consumer dollar, which has developed practically within a generation and most rapidly within the last ten years.

### **MOTION PICTURES**

ANOTHER relatively new industry is the motion picture, especially with sound reproduction, which affords entertainment and some degree of education to some 115,000,000 persons per week in the motion picture theatres. It is being utilized in the public schools, and in industrial plants, as well as in special schools and training classes for instruction in both technical and commercial fields.

### **ELECTRIC APPLIANCES**

ELECTRICAL appliances for use in the home have largely developed in the last ten years, as evidenced by the sale, in increasing amounts, of a long list of appliances designed to lighten the duties of the household. A list of 19 such appliances shows that the national sales more than doubled in five years from 1922.

### **RADIO**

THE RADIO industry has been developed wholly within ten years—resulting in not only bringing to the homes, through some 13,000,000 radio sets, entertainment and educational features which are playing their part in increasing the enjoyment and in broadening the view-

point of the population, but also in developing a new and potent advertising medium.

These are but a few indications of the rapid changes and inter-reactions which have taken place in the habits and standards of living and in the production and distribution of consumer goods and services, which have had a far-reaching effect on the consumer market.

### III. RETAIL DISTRIBUTION OF CONSUMER GOODS

#### Retailing Functions and Agencies

RETAILING is the final function in the distribution of commodities to consumers, and gives fulfilment to all preceding productive and distributive efforts of whatever type, by making merchandise available to consumers at the time, place, and in the form required by them.

Theoretically, at least, the agency performing this function—the retailer—is serving as a purchasing and supply agent for his community, which necessitates that he select and carry a reserve supply of merchandise properly adjusted to meet the requirements of the individual consumers he serves.

The efficiency of the retailer and the degree of success with which he functions are equally of concern to consumers and to the agencies of distribution and production supplying him with his merchandise. He is in immediate contact with the consumer and, if efficient, should reflect the quantitative and qualitative needs of consumers back to these other agencies, accurately and promptly.

The total volume of sales by retail stores in the United States is estimated to be between \$55,000,000,000 and \$60,000,000,000 for 1930. Definite statistics will be available as to volume and number of retail outlets by classes from the Census of Distribution within a short time.

#### NUMBER OF STORES

TABLE No. 16 is a composite of estimates for 1928, by several leading authorities, of the type and number of retail stores, together with the estimated volume of annual sales and the percent of the total annual retail sales made by each group.

TABLE 16

Types of retailers	Number of stores	Volume of sales	Percentage of total retail sales
Independent—unorganized . . . .	1,300,000	\$25,000,000,000	50-60
Independent—organized in voluntary groups . . . . .	60,000		
	to 80,000		
Chain Stores (10,000 companies)	150,000	\$8,000,000,000	18-20
	to 200,000	to 10,000,000,000	
Department Stores (both chain and independent) . . . . .	8,000	\$7,000,000,000	14-16
	to 12,000	to 8,000,000,000	

Mail Order Houses (incl. retail outlets) .....	1,000	\$1,500,000,000	3-5
	to 1,200	to 2,500,000,000	
Company or Industrial Stores..	10,000	\$1,200,000,000	3
		to 1,500,000,000	
House-to-house selling .....		\$1,200,000,000	3
Canvassing, Peddling, etc.....		to 1,500,000,000	
Consumers' Cooperative Stores.	1,700	\$250,000,000	0.5
Totals more than.....		1,600,000 to \$55,000,000,000	
		\$45,000,000,000	100

Table No. 17 shows, for the first five groups, the number of stores in each and the percentage of total annual sales of food and clothing handled by each group.

TABLE 17

Types of retailers	Number of retail stores	Percentage of annual sales of food (\$20,000,000,000)	Percentage of annual sales of clothing (\$10,000,000,000)
Independent—unorganized .....	1,300,000	60 to 70	25 to 40
Independent—organized in voluntary groups.....	60,000		
	to 80,000		
Chain Stores (10,000 companies)	150,000	20 to 25	10 to 15
	to 200,000		
Department Stores (both chain and independent).....	8,000	1 to 3	40 to 50
	to 12,000		
Mail Order Houses (including retail outlets).....	1,000	1 to 3	5 to 10
	to 1,200		
Totals .....	More than 1,500,000	About 90	About 90

These five groups handle nearly 90% of the total annual retail sales of the country, and approximately 90% of all sales of food and clothing.

A description of their characteristics as to form of organization and methods of supplying the consumer follows.

### Independent Retail Stores—Unorganized

THE 1,300,000 independent retail stores, scattered over the country, selling every line of goods, comprise more than 80% of the total retail outlets. Their annual sales amount to about 50% of the total annual retail sales in the United States.



It is estimated, however, that, as shown in Appendix XI, nearly 1,000,000, or 75% of these stores have annual sales volumes of less than \$25,000, and aggregate less than 20% of the total independent retail sales. Between 45% and 50% have annual sales of less than \$10,000; and between 25% and 30% have less than \$5,000, or an average of about \$44 per week, representing perhaps \$35 per week purchased from wholesalers.

Many of the smaller stores with low earnings are operated as family occupations, with members of the family earning part of their income otherwise.

### **UNPROFITABLE SMALL STORES**

THESE facts indicate that a substantial proportion of the independent retail stores are not profitable. This is further borne out by data presented in Appendix XII which shows that of a given number of independent drug, grocery, hardware and shoe stores in business at a given time, after five years 50% of the drug stores, 85% of the grocery stores, 62% of the hardware stores and 74% of the shoe stores, had gone out of business or into bankruptcy.

Estimates of the causes of failures as shown in Appendix XIII attribute 68% of failures in all lines of business to lack of capital and to incompetence.

It is evident that there is a heavy expense carried by the other distributive agencies and by society as a whole through the existence of so many unprofitable and unstable small retail outlets.

Twenty-five per cent of the independent retail stores aggregate about 80% of the independent retail sales.

### **SERVICE STORES**

IN GENERAL the independent retailer is a service distributor, and carries more or less complete lines, with credit and delivery service. While the smaller food stores do much of their business on a "cash and carry" basis, and the larger stores do some of theirs on that basis, as a rule the independent food store is run on a service basis with credit and delivery of goods to the customer's home; telephone ordering by customers is encouraged by most and featured by many of them.

The higher priced specialty shops deliver most of their orders. Drug, hardware and shoe stores probably deliver a smaller proportion of orders.

### **INCREASE IN EFFICIENCY**

WITHIN THE last ten years the better and perhaps the average independent retail store has become more efficient. The modern

standardized methods of the chain stores, the research of universities, trade associations and market research specialists have stimulated the analysis of store operating costs, and more recently of the costs of distribution processes as well.

Manufacturers, wholesalers and trade associations, have been aiding the independent retailers in the technique of advertising and salesmanship, and educating them as to the factors essential to make them profitable and efficient outlets.

The *efficient* independent retailer appears to be able to hold his place in competition with the other types of retail agencies. This especially is true when his effort is coordinated with that of the manufacturer and wholesaler so that production and supply accords more closely with the flow of goods into consumption.

In the case of the best of the retailers there appears to be an increasing tendency to restrict the number of varieties and lines carried more closely to those which move quickly, profitably and with predictable certainty, and yet of sufficient diversity to hold customer trade.

### Department Stores

WHILE it is estimated that there are from 8,000 to 12,000 department stores, doing from 14% to 16% of the annual retail business of the country, about 15% of the department store annual sales are made by the thirty largest department stores—less than 0.5% of the stores—each of which has more than \$20,000,000 annual sales.

In the rather generally accepted definition, a department store combines the following features:

1. It is a retail store.
2. It handles many lines of goods at one location; usually including dry goods, apparel and home furnishings.
3. It is primarily a woman's store, conveniently located for the shopping trade.
4. It is departmentalized as to the location, management and accounting, by lines of goods; each department being conducted as if a separate store or specialty shop, having its own management which is responsible for its profit-showing.

Also there are a number of large specialty shops in the larger cities, which under this definition are department stores, but which specialize in wearing apparel, usually restricting the number of lines carried, but these lines more complete than in the case of the general department store.

## **ADVERTISING AND DELIVERY**

DEPARTMENT stores are large advertisers, mostly in newspapers and direct by mail. While most of their sales are made over the counter, nearly all the large department stores operate extensive telephone order systems.

They usually maintain a highly organized motor truck delivery system, and in the larger cities deliver customer purchases over a large suburban area.

## **LEASING OF DEPARTMENTS**

THERE has been a considerable development, especially in department stores located in the medium sized and smaller cities, in the practice of sub-letting or leasing certain classes of merchandise departments—usually to some type of chain organization, or syndicate. It has been estimated that such leased departments exist in from 25% to 30% of the department stores.

## **SALES VOLUME**

SINCE 1921, there has been about 25% increase in the annual sales volume of then existing department stores. During the last few years, some of the larger department stores have been opening branches in suburban areas, due to increasing traffic congestion in the streets surrounding the shopping districts in the large cities, and to competition in the suburbs from chain stores in some of the commodity lines.

## **MERGERS**

OF LATE years there has been a trend toward mergers of department stores located in different cities. In some cases this is accomplished through a holding company. These vary as to the degree of centralized buying and as to actual direction of management but there is usually a considerable degree of autonomy of administration given to each unit management.

The original store name usually is retained on account of its good will value. Many such mergers have made available to their constituent stores a centralized research and advisory staff.

With these consolidations has come public financing in the offering of capital securities to the investing public.

## **WAREHOUSING, BUYING, MANUFACTURING**

LARGE department stores usually carry on their own warehousing functions. Their buying operations are extensive, often with special buying agencies—sometimes maintained by a group of stores—located in the large supply centers in the United States and abroad.



Only a few carry on a manufacturing function; most of them buy their stocks from manufacturers or large wholesale houses, although the larger volume stores frequently subsidize manufacturing.

There has been an increase in cooperative buying syndicates of department stores, without financial merger. Cooperative research organizations have been established, made up of stores in different cities, for interchange of statistical data and management information.

#### **EFFECTS AND CAUSES OF TRENDS**

THESE trends are bringing about closer relations and greater interchange of information between these groups and the manufacturers, to mutual advantage.

There is apparently some trend towards limiting the number and variety of lines carried, and concentrating on specialized lines.

These trends appear to have developed as a result of the high operating cost ratio characteristic of department stores, and of the relative decrease in their advantage as to mass buying due to the general increase in large scale retailing and to the increasing competition of high class specialty shops and of chain stores.

#### **Mail Order Houses**

WHILE there are more than 1,000 organizations which may be classified under this heading, handling about 5% of the total retail sales, it is estimated that about 40% of the mail order business is done by the two largest mail order houses.

Essentially, the mail order house is a department store, in that it supplies a wide variety of commodities, which it can buy in quantities and thereby sell at low prices. It has been an outstanding example of direct to consumer retailing, without salesmen, and with low distribution costs.

#### **ADVERTISING**

THE MAIL order house makes extensive use of advertising, particularly by comprehensive catalogues and by direct-by-mail. In this way it carries knowledge of its extensive line of commodities, unobtainable at many local stores, and of the prices applying to them, to people all over the country, particularly in the rural areas who could not be reached through the ordinary methods of distribution of such extensive lines of goods. The goods are ordered by mail, cash in advance, or delivered C. O. D., by parcel post, express or freight according to bulk or weight.

## RETAIL STORES

AS ONE-HALF the population has resided in rural areas and small towns, this field has been a fruitful one for the mail order houses, and for a number of years they made inroads on local retail sales in the smaller communities of the country.

The advent of the automobile, improved roads and the feature advertising of independent and department stores have combined to acquaint the residents of these rural areas with the availability of wide varieties of goods at reasonable prices in towns or cities within automobile driving distance. The ability to examine and select goods has operated to counteract some of the advantages formerly possessed by the mail order houses.

These trends have led the two principal mail order houses to open large retail stores outside but closely adjacent to the business centers of the larger cities, or in their suburbs, and in the business centers of scores of smaller cities. Thus they are establishing themselves with the consumers as chain department stores, operating under the mail order house name, with the prestige established through years of development of the mail order business.

Their retail stores now account for more than one-half of their total sales, and this proportion is increasing.

### Chain Stores

THE CHAIN store consolidates the ownership and management of many units or stores within the same line of merchandise, but at decentralized locations.

There are about 10,000 chain store companies controlling and operating from 150,000 to 200,000 retail stores. The estimates vary, largely due to difference in definition as to how many stores constitute a chain and to mergers between chains.

### VOLUME OF SALES

CHAIN stores as a whole probably handle close to 20% of the retail sales of the country and this percentage is even greater if sales of department stores controlled by chains are included. It is probable that the grocery chains are operating 20% of the grocery stores and selling from 30% to 40% of the grocery volume.

In the drug field, it is estimated that approximately 400 chains operating more than 3,000 stores do about 20% of the total business of all drug stores.

The 5 and 10¢ store chains probably account for at least 50% of the total business in the lines of notions and novelties which they

carry. It has been estimated that 75% of men's shoes are sold through chains or other forms of controlled outlets.

### CHARACTER OF OPERATIONS

THE CHAIN store developed largely through combining wholesale and retail operations under one centralized management, buying in quantity at low prices, and limiting the lines of commodities carried to quick turning items sold at low prices. The commodities sold are usually necessity and convenience goods of standardized or staple character.

The individual purchases are small in bulk and amount and can readily be carried home by the customer and paid for in cash. "Cash and Carry" has been generally typical of grocery chains, some also featuring "self service," and there has been no telephone order or delivery service. Advertising generally has been limited to local papers and based on price appeal.

With the improvement in independent retailing and the competition of voluntary chains there has been a recent tendency among the larger chain-store systems toward broadening their service by carrying a greater variety of goods, and by taking telephone orders and making deliveries under some conditions. The larger grocery chains are adding fresh fruit, vegetables and meats, becoming general food stores.

Some large chains are now doing institutional advertising on a national basis, and there is a trend toward quality appeal in both their local and national advertising.

### GROWTH

CHAIN store development has increased during the last ten years and chain stores have become an important factor in the distributive organization. This is indicated by the following estimate of the percentage of total retail sales by chain stores by years:

TABLE 18

1923.....	6%
1926.....	8%
1927.....	12%
1929.....	18%

Their expansion has been mainly developed through the opening of new stores, but more recently there have been a number of mergers of smaller chain systems with the larger.

There have been several mergers of large chains accompanied by the issue and sale to the public of capital securities.

This expansion, in the case of some lines and in some commu-



nities, appears to be approaching a possible saturation point; but where such point has apparently been reached they appear to be holding their own as compared with the volume of business handled by other types of distributors.

#### **ECONOMIC LIMITATIONS**

APPARENTLY there is an economic limit beyond which chain store operation cannot profitably go and there is no indication that this form of distribution can ever entirely supplant distribution through independent wholesalers and retailers. There is evident need for specialized service which cannot wholly be satisfied by the necessary standardization of chain stores.

The development of chain stores has tended to focus attention on the efficiency of retail distribution methods and has had a pronounced beneficial effect in the independent retail field. This has resulted in a great improvement in retailing methods and in the efficiency of retailing in general, as well as in increasing the distribution of consumer goods.

#### **Voluntary Chains**

APPROXIMATELY 400,000 of the independent stores are food stores, about 60,000 of which are organized for group buying and merchandising policies into 500 to 600 "voluntary chains". While actual figures are not available it has been estimated that the voluntary chains account for 20% to 30% of the total sales through grocery stores. There are probably more than 10,000 independent clothing, drug and other retail stores included in various forms of group organizations.

#### **INITIATED BY RETAILERS**

THE voluntary chain is a comparatively recent development among the independent wholesalers and retailers. It first took the form of groups of retailers who pooled their purchases, or groups of retailers who organized wholesale and warehouse services of their own. These two types represent about 50% of the voluntary chains and over 40% of the voluntary chain stores in the grocery field.

#### **INITIATED BY WHOLESALERS**

A FURTHER development was initiated by wholesalers, by entering into voluntary contracts with their retailer customers. This type has grown rapidly, especially from 1928, and represents about 50% of the voluntary chains and nearly 60% of the voluntary chain stores in the grocery field.

## **OBJECTIVES AND TRENDS**

THERE has been a rapid evolution in these groups in developing coordination of effort directed toward cooperative advertising, better stock control, better arranged stores and improvement in the character of their retail selling. In general, this has been a cooperative attempt to incorporate into independent wholesale and retail merchandising the best features of the regular chain form of operation and a combination of the wholesale and retail functions.

The voluntary chain usually preserves the name and prestige of the local independent merchant and his established citizenship in the community in which he operates, while it affords him many of the advantages possessed by the regular chain stores.

While the voluntary chain first started in the grocery field, as a rule the individual units were handling a much wider variety of food-stuffs than the regular chains, which tended to concentrate on relatively few lines. Competition is resulting, in the case of both types, in a trend toward becoming general food stores and toward improving the salesmanship essential to holding the entire food business of customers. Recently the larger voluntary chains have been doing institutional advertising and featuring their own advertised brands of goods.

The voluntary chain, while handicapped by the delays and difficulties in obtaining unanimity of action inherent in any voluntary association, is essentially striving for the same objectives as the regular or centrally-owned chain, which are the effective coordination of the wholesale and retail functions and more efficient retailing.

As the most recent development in large scale retailing the voluntary chain is receiving much attention and the future developments as to organization structure, ownership and participation in profits, will be awaited with great interest.

### **Miscellaneous Retail Agencies**

THE FIVE major classes of retail agencies just discussed account for between 90% and 95% of the total retail business of the country. Approximately 5% to 10% of retail business is done through a variety of types of retail outlets.

### **COMPANY OR INDUSTRIAL STORES**

THERE are about 10,000 company or industrial stores accounting for about 3% of the total retail sales of the country. They represent various forms of controlled organizations for supplying the necessity goods requirements of large groups of employees of indus-



trial organizations, especially when the latter are located outside the cities or towns.

In some cases, it has been possible to do this at prices lower than they would ordinarily be able to make; the company or industrial organization assuming the burden of the rent and of the wholesaling and warehousing functions.

### **HOUSE-TO-HOUSE SELLING**

IN VARIOUS forms house to house selling accounts for about 3% of the total retail sales. Its development has been largely in lines of goods designed for household use such as cleaning instruments, kitchen utensils, hosiery and other specialty women's wear goods, and in food specialty lines such as tea, coffee and spices.

The most recent development is the use of specially constructed trucks, rather commonly termed "rolling stores", which bring various lines of goods direct to the door of the customer, permitting of inspection and selection of the goods. This is being developed in a variety of lines in addition to those mentioned above, such as women's ready-to-wear goods, dry goods, blankets, etc., and even rolling drugstores have appeared.

It is difficult to appraise the extent to which this trend in carrying the store to the consumer may develop.

### **CONSUMER COOPERATIVE STORES**

CONSUMER cooperative stores have never become an important factor in supplying consumers in the United States. It is estimated that there may be about 1,700 cooperative consumer buying associations which account for not more than 0.5% of the total retail sales of the country.

In some instances, these sprang up due to dissatisfaction with company or industrial stores; in other cases, for the pooling of purchases of necessity goods and thereby being able to take advantage of wholesale or jobber prices when buying. Usually the goods are sold at prevailing prices and the difference above cost returned in the form of a dividend paid periodically in proportion to the amount purchased.

While few data are available to show any pronounced trend in this movement, it is believed to be increasing slightly rather than decreasing.

## IV. RETAIL CREDIT PRACTICE

THE NATIONAL retail credit survey of the United States Department of Commerce, covering a cross section of the country for 1927, reported that over 40% of all retail sales were made on a credit basis. This was divided to show about 32% on open credit and 9% on installment. The survey covered stores doing both credit and cash, and cash-only business. Excluding those stores selling only for cash, chain department stores and department stores conducted by mail order houses, it was found that 39% of the total sales were for cash, 49% on open credit, and 12% on installment.

It seems certain that independent retail stores of the country, exclusive of department stores, do over 30% of their business on credit, both open and installment.

### VARIATIONS

WITH chain stores the credit practice varies with the type of business. Food chains sell almost entirely on a cash basis. On the other hand, automobile supply chains sell largely on a credit basis. Clothing chains do a large credit business, both open and installment credit.

In the above survey, radios were sold 23% on open credit and 29% on installment. Automobile retailers reported 16% on open credit and 47% on installment sales; these include sales of accessories.

Mail order houses at one time—at least the two largest ones—did largely a cash business.

Many of the specialty mail order houses, however, have had liberal credit policies for many years, the practice having been to ship merchandise for “30 days free trial”, or some similar arrangement. The larger mail order houses have extended their credit policies in the past few years by selling certain classes of goods on the installment basis to stimulate sales in dull seasons. Just what percentage of their total business this may be is not definitely known.

### RETURNED GOODS

AMONG the significant facts developed by this survey was the high percentage of returned merchandise. In the case of charge account sales, shoe stores averaged 21% returns and allowances; women's wear and department stores 14%. On cash sales, fur goods stores showed 16%. On installment sales, furniture stores and department stores showed over 13%.

The effect of this practice on profits and prices is material and properly is a subject for constant study by retailers looking toward improvement in their distribution efficiency.

#### **INSTALLMENT SELLING**

A SMALLER survey comparing the first six months of 1929 and 1930 showed a slight trend of increase in open and installment credits. Installment sales apply most commonly in the case of goods of more or less permanent value and relatively high unit price, such as automobiles, furniture, radio sets and clothing. Losses and repossessions apparently have continued low, and bid fair to continue to be if there is an intelligent check of credit risk, in addition to the collection of an adequate advance payment.

With the improvement which is taking place in the way of organized exchange of credit information by retail stores, it seems not unlikely that credit sales will increase in certain types of business.

## V. WHOLESALE DISTRIBUTION OF CONSUMER GOODS

A RECENT definition reads: "it is the wholesalers' function to carry a well-selected stock of merchandise, to buy or assemble it in considerable quantities, to warehouse a reserve stock for retailers within a radius of economical distribution and convenience of service and to re-sell in proper units to the retailer as economically as possible."

Accurate estimates of the number and types of wholesalers are not available. The 1930 distribution census will show such figures in accordance with certain definitions and classifications.

The total amount of wholesale trade is difficult to estimate, but the National Bureau of Economic Research has placed the figure at over \$20,000,000,000 for 1928 as to sales of consumer goods by individual wholesalers to retailers.

### SALES OF WHOLESALERS

THE proportion of goods supplied to retailers through wholesalers varies considerably as between commodity lines; and also as between sales to independent retailers and to chain retailers.

It is estimated that more than 50% of the total sales of merchandise of independent grocers are of goods bought from wholesalers, while over 80% of the chain grocery sales are of goods bought direct from producers and manufacturers. Apparently, some 60% of the total retail grocery sales are bought direct from manufacturers or producers by the retailer or are manufactured by the retailer himself. Independent drug stores are estimated to purchase about 60% of their total sales from wholesalers, while chain drug stores purchase about 20%.

Certain estimates for other lines tend to indicate that the wholesaler supplies retailers with 33% of the cotton cloth, 20% of the carpets, 40% of the rugs, and from 20% to 40% of various kinds of silk, and through the wide range of 5% to 90% of the woolen and worsted cloths. These latter figures indicate there is a considerable variation between general lines of commodities and between varieties in the same line.

### CHANGES IN WHOLESALING

PERHAPS the most marked changes which have taken place in distribution in the last decade have been in the field of wholesaling.

Formerly, the typical wholesaler carried a wide assortment of everything in his general commodity line which retailers needed,



although there were specialty wholesalers who carried a smaller assortment, in some cases confined to a single line. The shifting of retail trade toward the larger centers has tended to reduce the small town retailer market and to increase the expense of selling to it.

The growth of chain stores in the larger centers, which are supplied through centralized buying, has reduced the number of local customers of the wholesaler in these places. This contraction in the retailer markets brought increased competition between wholesalers, further stimulated by pressure of manufacturers to push their particular products.

The intensity of this competition, together with hand-to-mouth buying by retailers, has led to more frequent sales contacts with smaller and unprofitable orders for the wholesalers; or high pressure selling has resulted in overloading retailers with stocks which could not readily be disposed of. This competition, to a considerable degree, has been responsible for the starting and the short lived existence of so many small, unprofitable independent retailers, many of whom were started in business by wholesalers in order to secure more outlets.

#### **SELLING METHODS**

**WHOLESALE**RS have sold to retailers largely through periodical visits of traveling salesmen. The intensive competition, with more frequent and more distant visits, with smaller average orders, secured at high cost, has resulted in a trend toward fewer visits in person, and these devoted to introduction of new products, checking over stock requirements and advising as to effective retailing methods. The telephone is used to keep up frequent contact; many wholesalers operating truck delivery routes coordinate selling by telephone with the regular delivery trips. The main trend is toward developing and servicing the efficient retailers.

#### **MANUFACTURED PRODUCTS**

**THE INCREASE** in large scale buying by chains, voluntary chains, department stores and group buying organizations, which deal direct with manufacturers, has materially affected the independent wholesaler and has led to many realignments in wholesaling operations and organization.

Manufacturers have opened branch warehouses and done their own wholesaling, in order to provide a more aggressive and effective performance of the function. Large wholesalers have established their own manufacturing plants for some of their lines, and sell their own brands of goods. Mutual wholesalers have developed, retailers making deposits against orders, or becoming stockholders.



Wholesalers have established controlled chains. Many have organized or joined voluntary chains. "Cash and carry" wholesalers have been established in the grocery field, the retailer calling for and paying cash for the goods, which he transports to his own store.

"Wagon Jobbers," over 10,000 in number and operating more than 40,000 motor trucks, distribute a limited number of food specialties to retailers over considerable distances.

#### **AGRICULTURAL PRODUCTS**

THERE have been similar changes in the wholesaling of agricultural products, such as fresh fruit, vegetables, milk, eggs, hay and cereals for feeding, which are sold to consumers practically in their original form. These products must be assembled in quantity from widely scattered sources, mostly small in size, transported expeditiously over considerable distances, concentrated in central or terminal markets, and distributed in lesser quantities to retailers in scattered markets.

There have been marked changes in the way of more efficient and larger scale production and in improved refrigeration in transit and at terminal warehouses; inspection, grading, packaging, specialized large scale marketing of advertised quality brands, have stimulated consumer demand. The operations of large wholesaling organizations have been integrated with those of large-scale producers.

Producers are becoming represented in larger marketing units in the form of cooperative marketing organizations, allied or competing with other organizations which perform wholesaling functions. Clearing houses and exchanges, "futures" selling, alliances of the voluntary chain type, and other developments, are typical of the trend toward more effective coordination of marketing operations.

#### **ESSENTIAL CHARACTER OF WHOLESALING**

THESE ARE a few of the causes and effects of the almost revolutionary changes which have been taking place in the field of wholesaling. The functions of wholesaling are essential in the mechanism of distribution; they are being performed today no less than in the past, but by various agencies or methods, specialized and adapted to the differing and changing conditions to be met.

## **VI. MANUFACTURERS' DISTRIBUTION OF CONSUMER GOODS**

WHILE there are some 200,000 manufacturing establishments, 5% of them produce 68% of the manufactured products of the country.

Over 60% of consumer retail purchases are of food, clothing and house furnishings, which represent more than one-third of the total manufactured products.

In previous sections there has been indicated the trend toward closer relations and cooperation between retailer, wholesaler and manufacturer in various forms of organization and degrees of control. This has been caused by the increase in competition resulting from greater plant capacity and more efficient production and from the greater number of industries competing for a share of the consumer's dollar; and by the speed and certainty with which consumers make their wants known.

### **LARGE SCALE BUYING**

THESE trends, together with the great increase in large scale buying by chains, voluntary chains, department stores, mail order houses, group syndicates and mergers, have brought requirement for more direct interchange of information between the manufacturer and the retail outlets.

The extent of this large scale buying is difficult to measure; but it is estimated that the bulk of the buying of some 200,000 chain stores is concentrated in less than 8500 chain headquarters. In the grocery trade this is even more concentrated; the buying of some 80,000 stores is concentrated in less than 1200 headquarters.

Not only must the manufacturer keep informed as to the character of the retail demand, but he has to compete for this large scale business. In many cases this requires an entirely different type of sales effort from that usually available through wholesalers; one which has to be carried on by executives having full knowledge of the goods and the processes of production, the plant capacity, delivery limitations, etc., and having authority to make prices and to close contracts.

### **STIMULATING CONSUMER DEMAND**

MANUFACTURERS have carried on extensive national advertising of their branded products, to develop effective consumer demand for their goods at retail outlets, to lower retailing costs through making

less salesmanship necessary, and to make stock turnover more rapid for the wholesale and retail agencies concerned.

Within the last two years large chain and voluntary chain systems, and other large distributors, have entered into extensive advertising of their own private brands to a degree which is developing serious competition with the manufacturers' brands.

### **SPECIALTY SALESMEN**

WITH the increase in the necessity of keeping closely in touch with variations in consumer demand and to promote efficient retailing of their particular products, manufacturers in certain lines have made use of specialty or "missionary" salesmen to stimulate greater sales effort by retailers, and to introduce new products, the goods sold being billed through wholesalers. Apparently the use of this type of sales promotion is lessening.

### **SYNCHRONIZATION OF OPERATIONS**

MANUFACTURERS have a double responsibility, not only to organize and time the arrival of the raw material and supplies which enter into the manufacture of their product to synchronize with their manufacturing processes, but also to endeavor to closely adjust both to the rate of flow of goods from retail outlets into consumption.

In the case of some of the largest manufacturers, there is practically complete integration of operation and control from the raw material through the manufacturing and distributive processes to the final consumer. In some cases manufacturers control their own retail outlets; in others, chains of retailers own an interest in or control manufacturers; manufacturers have opened branch plants or distributing warehouses.

### **NON-CONTROLLED OUTLETS**

AMONG the great variety of forms of relationship between manufacturers and wholesale and retail outlets there have been some especially significant developments indicating efficiency and profit in distributing through other than controlled outlets.

Certain manufacturers have contracted with selected wholesalers for the exclusive wholesaling of their products in definite territories, and, through a committee elected by them the wholesalers participate with the management of the manufacturer in determination of the policies and methods which will give the maximum market development, with reasonable profit to all concerned.

In some cases a manufacturer has contracted with a chain of retail stores to distribute his product, billing the goods to them at cost at factory shipping door. The retail chain sells the products at

standard prices, deducts the cost of its handling and selling them and the balance or profit is divided between the manufacturer and the chain.

In other cases manufacturers have acquired through consolidation several other manufacturers of lines of complementary or non-competitive products which can be retailed through the same outlets, and serve these through one set of salesmen, in this way reducing distributive costs and having greater opportunity to improve the retailing of their commodities as a whole.

### **MERGERS**

THERE IS a trend toward mergers and public financing of manufacturers in many lines of consumer goods. In a number of cases they are bringing together quite unrelated products which can be retailed through the same outlets. In several cases mergers have provided for stock ownership by wholesalers and retailers who enter into contracts for distributing the lines of goods.

### **RESEARCH ACTIVITIES**

THE ORDERLY movement of goods with minimum lag at any point conserves working capital and is to the mutual interest and profit of all the agencies or functions concerned, and to the ultimate consumer as well. In recognition of this many large manufacturers maintain market research departments to study and develop the consumer market for their goods and the best methods of supplying them, whether or not they control the various distributive agencies. In fact, such a function has become essential to profitable operation on any large scale.



## VII. WAREHOUSING

ONE OF the essential functions of wholesaling is the warehousing of a reserve stock for retailers within a radius of economical distribution and convenience of service.

With the trend toward large scale manufacturing and distribution it has become of increasing importance to carry reserve stocks at points close to the retail market and to ship to them in carload lots, distributing from them by less-than-car-load lots or by motor truck.

The necessity for speed of delivery and rapid turnover of stocks, the tendency of retailers and wholesalers to carry smaller stocks than formerly, cooperative buying and other factors, have brought about specialization in this function.

### PUBLIC AND GROUP-OWNED WAREHOUSES

WHILE the larger wholesalers or manufacturers have been able to perform this function economically and efficiently as to costs and service, there has developed within recent years a large number of commercial or public warehouse companies which specialize in furnishing complete warehousing service. It is estimated that in 1928 there were more than 4,000 of such companies, operating about 8,000 warehouses, most of them of modern, fireproof construction and equipped with modern devices for loading, unloading and handling merchandise.

Over 120 cities in the United States have such warehouses, linked together as a system by a strong association which directs their operation and develops or sells this warehouse service to wholesalers and manufacturers, large retailers and cooperative buying groups.

In some cases a chain of warehouses is owned cooperatively by a group of manufacturers—in reality being a system of jointly-owned private warehouses, serving the joint needs of the owners. In one case at least the owners are large competing manufacturers.

### OPERATION AND SERVICES

THESE public and jointly-owned private warehouses receive merchandise, store it, and distribute the goods upon orders from the manufacturer or wholesaler. In many cases they ship on orders direct from the salesmen of the manufacturer or wholesaler, or even of their customers. Shipments are usually made the day the order is received, packages are marked with the manufacturer's or wholesaler's label and, in some cases, store-door delivery by motor truck is made to retailers in the cities, their suburbs and even in smaller



towns. The essential accounting and billing procedures are often a part of this public warehouse service.

A large proportion of the smaller wholesalers and manufacturers and numbers of larger units in these lines are making use of these public warehouses in an increasing degree, finding that the warehousing and distributing services can be performed by these agencies with greater economy and efficiency than the manufacturers and wholesalers can perform them themselves.

## VIII. ADVERTISING

THE USE of advertising as a means of creating consumer interest, acceptance and demand has increased by probably over 50% since 1921. While complete figures as to the amount of annual expenditures for advertising are not available, the National Bureau of Economic Research estimated that for the year 1927 a total of over \$1,500,000,000 was distributed by media as follows:

TABLE 19

Media	Amount	Per cent
Newspapers .....	\$690,000,000	46
Direct by-mail.....	400,000,000	27
Magazines .....	210,000,000	14
Business papers.....	75,000,000	5
Outdoor advertising.....	75,000,000	5
Premium advertising, programs, directories.....	25,000,000	1.7
Street car cards.....	20,000,000	1.3
Radio broadcasting.....	7,000,000	..
	\$1,502,000,000	100

The total expenditure for 1930 undoubtedly was nearer \$2,000,000,000.

### NEWSPAPERS

FROM 1921 to 1927 the circulation of daily and Sunday newspapers increased over 33%, the total advertising lineage by 23% and the advertising rates by 32%; while the milline rate (the rate per line per million circulation) decreased by 1% to 2%.

### MAGAZINES

ANALYSIS of advertising in more than sixty leading magazines shows an increase in circulation varying from 17% to 41%; in lineage from 17% to 200%, and an increase in expenditures for advertising of 84%, for the same years.

### RADIO

ESTIMATES by years for the other classes of media are not available. It is noteworthy that radio broadcasting, which had developed as an advertising medium during these years, is estimated to have amounted to \$7,000,000 in 1927, including the cost for artists and other feature talent. Its growth since then has been phenomenal. The amount spent for station time of the two large broadcasting systems in 1930 was over \$26,500,000. It is estimated that twice as much was spent for local spot programs and nearly \$15,000,000 for

talent. The total has been variously estimated to be between \$75,000,000 and \$100,000,000.

### **EXPENDITURES**

THE EXPENDITURES for advertising by commodity groups in the various media are not accurately known. Data gathered by the National Bureau of Economic Research indicates that in 1927 the percentage of the total expenditure for newspaper advertising 25% was for automobiles and accessories, 18% for toilet articles and medicinal preparations, 13% for food, groceries and beverages, and 10% for cigars, cigarettes and tobacco.

For magazine advertising the percentages were, 17% for automobiles and accessories, 10% for toilet articles, 17% for food, and 9% for household goods.

### **COOPERATIVE ADVERTISING**

COOPERATIVE advertising by trade associations, covering specific general lines of commodities, increased 170% between 1921 and 1929, amounting to over \$6,000,000 in the latter year.

### **QUALITY**

THE ART, typography and quality of advertising have improved, better advertising ethics have prevailed and advertising has tended to become more effective. While formerly the advertising pointed out that specific commodities or services were available, it is now directed more toward shaping and modifying latent demand and to making the consumer a more active and competent buyer.

The large growth in magazine advertising in particular has been effective in preparing the commodity market for more efficient retailing operations when planned and coordinated with the other sales operations.

### **INFLUENCES**

THE INCREASED expenditure for advertising, taken as a whole, has undoubtedly been a factor in stimulating and changing demand in many industries since 1921. As to whether it has been the means of effecting economy in selling or in lowering consumer prices, conclusive facts are lacking and there appears to be a balance of opinion. Advertising is rapidly becoming more subject to the measurement of the results obtained in relation to its cost, as in the case of any other sales agency.

### **AGENCIES**

WHILE there is a large number of advertising agencies in the United States, it is estimated that there are some 300 which handle

about two-thirds of the national advertising accounts of manufacturers and distributive organizations.

### **RESEARCH**

THE LARGEST agencies maintain market research organizations as a part of their service to clients, and increasing and intensive attention is being given to ascertaining and appraising the general markets as well as those for specific commodities, and to the selection of the media and type of advertising which will most effectively develop them.

## IX. TRANSPORTATION AND COMMUNICATION SERVICES

THESE services are instrumentalities of fundamental importance in effecting the successive transfers of ownership of goods and in moving the goods themselves.

### Transportation

#### RAILROAD

SINCE 1923 railroad transportation has improved in efficiency to a remarkable degree and has had a pronounced effect on the orderly and rapid transportation of merchandise.

An average daily shortage of freight cars of 29,000 in 1923 has been progressively reduced by cooperative work between the railroads and regional shippers committees. In 1928 the railroads furnished shippers 99.97% of the cars they wanted, when and where they wanted them; there were 20 different weeks in that year in which there was not a single failure to furnish every shipper with every car he wanted.

The average freight car mileage per day has increased 15% since 1923 and 28% since 1920; the average number of freight cars per train over 30%; the net ton miles per freight train hour over 40%. It is now the general practice to run a large part of the freight trains on schedules almost as stringent as those for passenger trains.

The business concerns themselves participated in this improvement, as evidenced by the 33% reduction in the amount collected in demurrage charges in 1927 as compared with 1923, due to more prompt unloading and removing shipments.

These improvements have made the deliveries of freight more prompt and more dependable. This enables all types of producers and distributors, as well as large consumers, not only to receive the goods which they have ordered in less time, but also—due to improved regularity of operation—to know just when they will receive them.

The economic importance of this improvement can best be comprehended from the effect which it has had in enabling business concerns to reduce their inventories. It has been roughly estimated that this reduction amounts to about 25%, thus releasing to other uses capital unproductively tied up in them.

#### MOTOR TRUCK

MOTOR truck transportation has been increasing very rapidly, particularly in the last five years. The amount of merchandise handled



by motor trucks is not known, due to the rapid increase all over the country in the carrying of merchandise by individual truck operators and by well organized fleets under corporate control. These agencies are handling an increasing proportion of "less than carload lots" on a door-to-door basis, for the shorter distances.

In many parts of the country regularly scheduled motor truck operation is in effect for distances of 200 to 300 miles and even greater. A large number of trucks are engaged in bringing farm products to market. For the return trip many of them secure pay loads of groceries and other items for delivery to retailers along the return route.

The development of this form of transportation has affected the short haul traffic of the railroads, some of which are organizing motor truck service complementary to their trunk line service. Various experiments have been made looking toward a coordinated service; the merchandise is taken from the shipping platform of the producer, manufacturer or wholesaler packed in containers and delivered at the receiving door of the buyer.

## **WATER**

WHILE substantial in amount, water transportation is a relatively small percentage of the total volume of transportation tonnage, but has increased substantially since the war. It is important as an agency for the economical transportation of bulk goods where speed is not required. The volume of traffic and the trend is indicated in Table 20, on the following page.

## **EXPRESS AND PARCEL POST**

AN IMPORTANT part is played by express and parcel post in transporting packages too small to go economically by freight and where greater speed of delivery over considerable distances is required. These services have been extensively used by manufacturers and wholesalers who ship in small units to retailers. The parcel post in particular was a considerable factor in developing the mail order business.

Express and parcel post have competed with each other since the introduction of the latter service in 1913; while the parcel post volume has increased, the volume of express business has steadily decreased. Both services have been affected by the increasing development of motor truck service.

## **Communication**

COMMUNICATION services have become of increasing value with the increasing complexity and volume of business operations in the

# CARGO TONNAGE OF WATER-BORNE COMMERCE

[Thousands of short tons of 2,000 pounds]

TABLE 20

	1924	1925	1926	1927	1928
Foreign Commerce, total.....	101,562	108,547	131,293	120,523	126,768
Imports, through seaports.....	36,425	42,792	44,834	43,388	46,690
Exports, through seaports.....	49,008	49,251	69,859	56,550	56,151
Imports, Great Lakes ports.....	4,962	7,317	6,424	8,098	8,548
Exports, Great Lakes ports.....	11,167	9,187	10,176	12,487	15,379
Domestic Commerce, unadjusted total.....	384,454	443,022	470,208	473,118	482,232
Coastwise, between ports.....	88,554	105,090	108,023	121,036	119,254
Great Lakes, between ports.....	93,188	111,568	116,486	113,917	119,301
Local traffic of seaports and Great Lakes ports..	77,270	64,981	89,168	78,162	77,925
Traffic between seaports and river points.....	32,315	47,214	34,510	38,191	37,672
Traffic on rivers, canals, and connecting chan- nels.....	93,127	114,169	122,021	121,812	128,080
Foreign and Domestic, unadjusted total.....	486,015	551,568	601,501	593,641	609,000
Deduction of duplications:					
Traffic between seaports and river points.....	32,315	47,214	34,510	38,191	37,672
Other duplications (canals, etc.).....		20,954	26,491	22,950	32,128
Net total, foreign and domestic.....	453,700	483,400	540,500	532,500	539,200
Approximate net total, domestic.....	352,139	374,854	409,207	411,977	412,432

field of production and distribution. They have brought buyer and seller in all lines of commercial activity closer together; and their increase in utility is indicated by the fact that the number of pieces of first class mail per capita was 23% greater, the number of telegrams, 45%, and of telephone messages 43%, in 1928 than in 1921. In 1928 the per capita use of these several communication agencies was: pieces of first class mail, 137; telegrams, 1.9; telephone messages, 231.

## **POSTAL**

THE POSTAL service between all principal business centers in the United States is remarkably fast, and special speed in service is afforded by the air-mail, now effective from coast to coast and between most of the important cities. The miles of service actually flown per year have increased from 2,800,000 in 1927 to 15,500,000 in 1930; the total weight of mail dispatched by airplane having increased from 473,000 to over 7,700,000 pounds in the same years. The time required to transport air-mail for the longer distances is from 1/3 to 1/2 of that by the fastest mail trains.

## **TELEGRAPH**

THE TELEGRAPH service has offices in practically every town or village of any size in the country and the receipt and delivery of telegrams is further facilitated by a complementary utilization of the telephone service by which messages can be sent to or received from the nearest telegraph office by telephone.

The speed of sending and delivering telegrams between the principal cities has improved materially in recent years and that the value of this service is receiving increased recognition is shown by the 45% increase in the messages per capita, from 1921 to 1928.

Besides the fast service afforded at all times, the "Night Letter" permits messages of fifty words to be transmitted during the night hours to be delivered the next morning, at the regular rate for ten words. This service is utilized extensively in the distribution field to convey market information, orders for goods, instructions for dispatching goods and numerous other uses.

It has developed a new application of direct-by-mail advertising in that thousands of night letters are sent each night containing sales appeals in various forms. As these are written on the regular telegram forms, they have an interest-provoking value greater than the average direct-by-mail appeal.

## **TELEPHONE**

THE TELEPHONE service in the United States inter-connects every city, town, village and hamlet. There are 16.3% telephones per 100

population, handling over 230 telephone conversations per capita per year, the number of telephones having increased 58% in ten years and the average number of daily telephone conversations having increased 93% in the same period.

The toll and long distance service between principal cities and towns gives telephone connection between them in less than two minutes on the average, 95% of the connections resulting in an answer or a report of inability to complete the call while the calling person remains at his telephone. This form of communication service is used extensively in the sale and movement of merchandise and in the business transactions incidental thereto.

Retail stores, particularly the foodstuffs and department stores, advertise for and receive substantial proportions of their orders for goods by telephone. The use of the toll and long distance service by manufacturers and wholesalers has been profitably applied in increasing degree in the contact, sales and service operations between themselves and with retailers.

### **Specialized Transportation and Communication Systems**

SPECIALIZED transportation and communication systems are factors of size and importance in the case of certain specific industries.

#### **PIPE LINES**

IN TRANSPORTING oil and gasoline pipe lines have attained considerable proportions, pumping the products from oil fields and plants to refining plants and main distributing points hundreds of miles distant.

Oil pipe lines aggregate over 100,000 miles in length and transport 1,000,000,000 barrels of oil per year. Gasoline pipe line mileage is much less, but transported nearly 2,000,000,000 gallons of gasoline in 1929. The mileage of both has increased substantially in the last two years. This represents a considerable tonnage loss to the railroads, which are striving to recover in part by an increase in the size and capacity of tank cars.

Some 80,000 miles of pipe lines are also in use between natural gas fields and 2,500 cities and towns in 22 states to supply natural gas for industrial and domestic use.

#### **AIR EXPRESS**

AIR EXPRESS carried on scheduled air transport lines 287,000 pounds in 1930, compared with 197,000 pounds in 1929, while 2,000,000 pounds of freight were transported by the private air service of a large motor car company in 1930.



## MARKET NEWS SERVICES

A FACTOR of fundamental importance in the distribution of agricultural commodities is the market news services. The United States Department of Agriculture and several commercial companies collect by wire service, the facts and data as to supply, demand, prices, etc.

The Department of Agriculture maintains about fifty permanent, and other seasonal, offices for the collection and dissemination of such data, making use of some 10,000 miles of leased telegraph and telephone circuits. This information is disseminated through the telegraph companies, the agricultural daily press publications, by mimeograph bulletins by mail, by telephone, and also broadcast in abbreviated form through some eighty radio stations at stated periods of the day.

Primary and terminal markets, commodity exchanges, cooperative marketing associations, packing houses, commission houses and other large manufacturing and distributing agencies depend on this service, which is essential to their facility and economy of operation. This service has grown rapidly, and undoubtedly through a greater degree of coordination will become of even greater importance in the distribution of agricultural commodities.

## X. EFFICIENCY IN SERVING THE CONSUMER MARKET

THE OBJECTIVE of all agencies and operations which have been discussed in preceding sections is to supply the wants—actual and stimulated—of consumers, at a cost to them as low as possible consistent with profitable operation of the agencies themselves. Efficiency of distribution operations is therefore of vital interest to both consumers and the agencies serving them.

During the period from 1922 to 1928, while large scale production and higher production efficiency tended to lower production costs, the increasing competition for the consumer's dollar caused by new products, and the intense competition for volume of sales of like commodities, tended to increase distribution costs faster than sales volume. Under these competitive conditions manufacturers and distributors generally devoted their efforts to stimulating and satisfying demand rather than to reducing their distribution expense.

This has been particularly evident in the wholesaling function. The competitive struggle for sales volume, complicated by changes in standards of living and the increasing emphasis on style and fashion, found resistance in the increase in "hand to mouth" buying on the part of retailers, and has resulted in constant changes in distributive costs, methods and organization.

### DISTRIBUTION MANAGEMENT

AS A result, within recent years intensive attention has been devoted to specialized distribution management. Studies to this end have been and are being carried on by individual concerns, by the <sup>trade</sup> associations, by marketing schools in leading universities, the Domestic Distribution Department of the Chamber of Commerce of the United States, the Domestic Commerce Division of the Department of Commerce and by leading students and professional advisors in distribution problems.

The results of some of these studies have been illuminating and in many cases somewhat startling. They have clearly established facts which indicate tremendous wastes in uneconomic competition and in distributive methods. They have demonstrated beyond question that allocation and evaluation of the effective markets for individual commodities is a primary essential to profitable business operation.

## **DISTRIBUTION CENSUS**

RECOGNITION of these facts led to the authorization of the Distribution Census of 1930, now being tabulated, which for the first time will make generally available a reasonably accurate record of consumption by commodity lines, so far as evidenced by sales through the various types of outlets in every community in the United States.

## **UNPROFITABLE BUSINESS**

THE STUDIES referred to have indicated that there are minimum limits as to the size of orders and shipments, and as to size of a customer's account, below which profitable operation is impossible; that these limits vary as between commodity lines and as between varieties of commodities in the same line. Also they indicate maximum trading area limitations beyond which it is not profitable to sell; these vary as between the elements just enumerated. They indicate that there are limitations as to the varieties and amounts of the stocks of each commodity which can be handled with minimum investment and with profit. They also furnish data permitting intelligent selection of the most economical channels of distribution and the selection and direction of effective advertising and sales effort. Finally, they demonstrate that all these vary and must be evaluated for each individual business.

As examples, specific analyses have shown that 40% of the orders of a large electrical supply manufacturer furnished the entire profit and had to cover the losses sustained on the other 60%. In the case of a hardware wholesaler, a similar analysis enabled him, after four years progressive application of the facts, to increase his net profits by 35% through reducing the number of his customers by 56%, his sales territory by 28%, the varieties of commodities sold by 30% and his sources of supply by 19%.

## **IMPROVEMENT IN DISTRIBUTION EFFICIENCY**

APPLICATION of these analyses have given practical demonstration of economies in capital investment and in operation, with increase in net profit, which are receiving increasing attention from consumers, distributors, manufacturers and producers. They demonstrate the need and value of a simple system of units and measurements adaptable to individual lines and functions of distribution.

With the early availability of the Distribution Census data, there promises to be a further acceleration of interest and activity in analysis of markets and of the methods, costs and results of effectively serving them, which will give to distribution the same inten-

sive development in efficiency which has taken place in production and which should have a profound effect on the economic life of the country.



## XI. THE INDUSTRIAL MARKET

THERE IS no clean cut and universally accepted definition of "Industrial Goods," as certain commodities are sold to both industries and individual consumers. However, there is general agreement that the "Industrial Market" includes manufacturers, who use raw or partially processed materials, machinery and equipment, supplies, and fuel or power, necessary to manufacture their products; also railroads and other public utilities, mines, construction industries and certain service industries.

There is also what is termed the "Institutional Market" which requires equipment and supplies—not for resale—made up of various types of institutions and Federal, State or local governmental agencies.

In this report only the former group will be dealt with.

### VOLUME OF SALES

THE ESTIMATED total of manufactured goods sold in 1927 was \$63,000,000,000, which includes \$23,000,000,000 of products sold by one industry to another. The estimated value of products ready for final use or consumption, to be sold to the consumer, industrial and institutional markets, was estimated to be \$40,000,000,000.

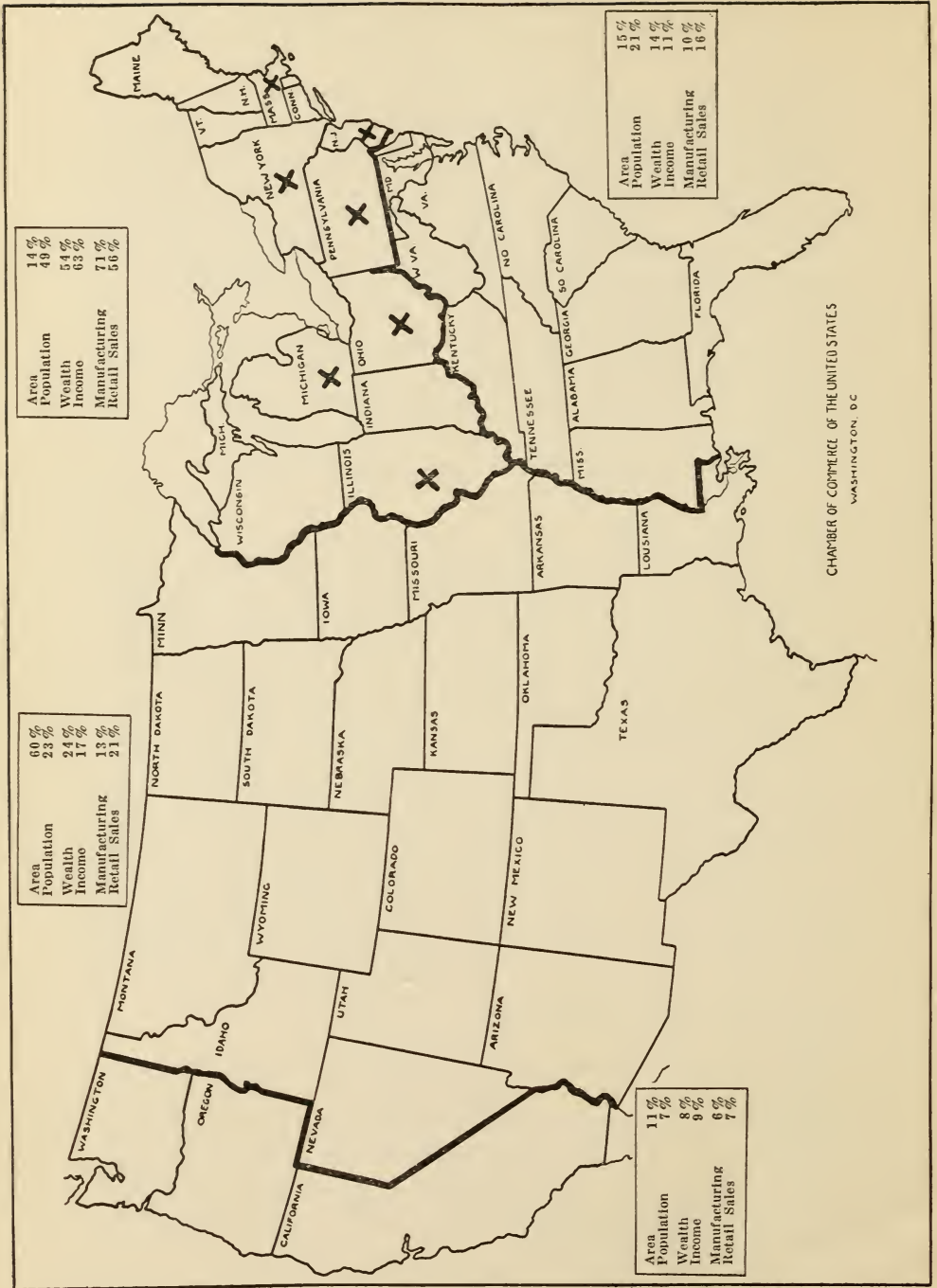
The total industrial market for 1929 has been variously estimated to be from \$42,000,000,000 to \$45,000,000,000. The preliminary report of the Census of Manufacturers for that year indicates that there were nearly 200,000 manufacturing establishments, which purchased material, equipment, supplies, fuel and power, to the amount of \$37,000,000,000. This total varies comparatively little from reports for 1923, 1925, and 1927, but is  $2\frac{1}{2}$  times greater than for 1914. Railroads purchased about \$1,500,000,000 and other public utilities and industries from \$3,000,000,000 to \$4,000,000,000.

### CONCENTRATION OF MARKET

THE INDUSTRIAL market is highly concentrated geographically. This is indicated by the map, Table 21, which shows that 71% of the manufactured products came from the fourteen northeastern states. This map gives a broad regional breakdown of the country showing the percentage of the area, population, wealth, income, manufacturing and retail sales, and indicates the effect of concentration of industry on these other factors.

The industrial market is further concentrated in seven of these northeastern states (marked X on Table 21), which in 1927, pro-

TABLE 21



duced about 60% of the total value of manufactured products for the country.

**TABLE 22**

New York.....	\$9,406,751,000	15%
Pennsylvania .....	6,715,563,000	11%
Illinois .....	5,386,003,000	8½%
Ohio .....	5,230,323,000	8½%
Michigan .....	4,244,941,000	7%
New Jersey.....	3,417,450,000	5%
Massachusetts .....	3,317,851,000	5%
	<hr/>	<hr/>
	\$37,718,882,000	60%

The industrial market is concentrated in a few of the 3073 counties in the United States. One quarter of the manufacturing establishments are located in 6 counties and another quarter in 39 counties; or one-half are located in 45 counties. One quarter of the materials used in manufacturing are bought by establishments in 8 counties and another quarter in 29 counties; or one half the materials are used by factories in 37 counties. The map in Table 23 shows this concentration classified by amounts.

The industrial market is concentrated in a few industries, as indicated by the fact that eight groups of industries purchased about 78% of the total materials purchased by all manufacturing industries in 1927, as follows:

**TABLE 24**

Industry purchasing	Percent of total Materials purchased
Food .....	23.1
Textiles .....	14.0
Iron and steel.....	10.0
Transportation equipment.....	8.2
Petroleum and coal products.....	6.6
Machinery .....	6.0
Chemicals .....	5.1
Nonferrous metal products.....	4.8
	<hr/>
	77.8

The industrial market is concentrated in relatively few of the 200,000 manufacturing establishments. According to the Census of Manufactures for 1925, 95% of the manufacturing establishments in the United States manufactured but 32% of the value of products of all establishments; while 5% produced 68% of the products:







**TABLE 25**

Class of establishment according to value of products	Per cent of total establishments	Per cent value of products of each class to total production
\$5,000 to \$20,000	30	1
20,000 to 100,000	37	5
100,000 to 500,000	23	15
500,000 to 1,000,000	5	11
1,000,000 and over	5	68
	100	100

**CHARACTERISTICS OF MARKET**

FROM THE foregoing it is clear that the industrial market varies from the consumer market in that the number of purchasers of industrial goods is relatively small and they are concentrated in a relatively few areas; the quantities purchased are very large in many cases, and the price of individual items often runs into large figures.

Industrial marketing is conducted largely on a rational basis, quality, utility and price being most important, whereas the marketing of consumer goods is more on an emotional or appeal to desire basis. In place of style and fashion problems which confront the distributor of consumer goods, the distributor of industrial goods is frequently faced with radical changes in products, processes and equipment.

New devices and materials which will reduce production costs may be accepted quickly, even if they result in discarding old machinery, equipment and methods.

The types of agencies which supply the industrial market and the methods of supplying it vary widely, as between the types of products sold, the types of industries purchasing the products, and the size of the establishments and of individual sales. They also vary as between the raw materials for manufacture, the material partially processed or for remanufacture, machinery, equipment, and supplies.

There are so many variations and ramifications that it is possible in this brief report only to indicate a few of the major characteristics and trends as to types of products sold, or as to agencies and methods of distribution.

**RAW MATERIALS**

RAW MATERIALS are the major items of distribution to the food and textile manufacturers. Together these industries purchase 37% of the materials purchased by all manufacturers. Their raw materials are practically all agricultural products, the distribution processes of which are complex and variable.

It is estimated that nearly 75% of farm products are sold to manufacturers. These products come from several million small and relatively few large farms. They are first concentrated at country shipping points and shipped in car lots; the country shipper may be a local merchant or buyer, an agent of a manufacturer or of a wholesaler in some large terminal market, or a cooperative association owned and operated by the farmers.

They are shipped to primary markets in large cities which have developed as centers for handling particular lines of commodities, where they are sold to manufacturers, or to wholesalers and other agencies for ultimate distribution to consumers.

### **GRADING AND STANDARDIZATION**

GRADING is an essential process in the case of agricultural products sold for manufacture which insures desired quality and tends to decrease marketing costs. It permits of "futures" selling and buying on organized commodity exchanges. The trend is toward performing this process as near the source of supply as possible. Government standards, inspection and certification are being applied to an increasing degree.

The trends appear to be toward larger scale growing and marketing. Cooperative marketing of agricultural products appears to be increasing. In general there is a trend toward greater coordination of marketing agencies and functions.

### **IRON AND STEEL**

IRON AND steel constitute 10% of the purchases of manufacturers. Probably 80% to 85% of the steel is sold direct to large manufacturers, usually to specifications, and under contract, with specified delivery dates. Jobbers handle 10% to 15%, of the steel, supplying smaller manufacturers, contractors, hardware merchants, etc.

### **MACHINERY AND EQUIPMENT**

MACHINERY and equipment represent about 6% of the sales to manufacturers, but they are fundamental factors as affecting the costs of consumer goods. Some of it must be manufactured to order, involving special design and specification, in some cases with installation and with servicing after the installation by the seller. Some smaller machinery and equipment may be standardized, produced in large numbers, and sold over a wider market.

The considerable capital investment involved and the relatively long life of machinery, with replacements infrequent, tends to make sales irregular, depending upon the cycle of business conditions in the industry. In some cases this leads to reduced prices during de-

pressions, in order to keep plants in operation, which through enabling buyers to equip economically tends, in some degree, to stabilize industrial production and distribution.

In the case of special machinery and equipment, supplies, etc., especially as to the larger organizations, the purchasing function is of a quite technical character, selling effort often must be made far in advance of an order, and competitive bids may be required. Price, quality and technical performance all enter into decision as to purchase. Supplies, etc., may be sold on long-term contracts.

In some cases service is important; buyers must be educated in the proper use of the product. In the case of certain types of patented products, such as shoe machinery and calculating machines, the equipment is leased and serviced under contract, and replacements by new and improved types of machines may be included.

### **DISTRIBUTION CHANNELS**

THESE variations require an engineering type of salesmanship to a degree not required in the consumer market, and affect the selection of the channel of distribution. There is an increasing tendency toward direct sale by the manufacturer to the user or consumer of industrial goods where the products are made to purchaser's specifications or where installation and servicing are undertaken by the seller, or where the unit value of the product is high, and where the aggregate requirements of the buyer are large.

On the other hand, there is a tendency to utilize the services of wholesalers and supply houses to distribute staple or standardized goods of low unit value to supply small individual requirements of both large and small industries and of those industries scattered over wide areas.

It is estimated that about one third of the machinery and equipment is sold through manufacturers' agents, machinery dealers, supply houses, etc., while special fields are sold through wholesale hardware, foundry, electrical, plumbing and railway supply jobbers, and specialty distributors.

Distribution of these classes of products to the industrial market is being developed along the lines indicated above and policies adjusted accordingly.

There are trends toward mergers in many industries which supply the industrial market. There are also trends toward cooperative or joint sales agencies in other than the agricultural industries.

Advertising to the industrial market is largely confined to trade publications; although some use is made of general publications of wide circulation, as in the case of some patented or quality parts of automobiles, etc., to assist in influencing the consumer demand.

## MARKET MEASUREMENT

THE MEASUREMENT, or allocation and evaluation, of the industrial market for specific products is simpler in some respects than in the case of the consumer market, due to the relatively small number of purchasers and the availability of certain classes of data. However, there is lack of basic data as to the individual requirements of particular industries.

The 1930 Census of Distribution data should make available a greater amount of information as to industrial purchases, secured from both buyers and sellers.

While the methods of distributing to the industrial markets may be less wasteful than those of consumer distribution, they are important in their effect on ultimate consumer prices for manufactured goods, and there is a wide field for further profitable industrial market research. The larger manufacturers have realized this, and the trend is toward more intensive analysis of all factors involved.



## **XII. MARKET INFORMATION SERVICES**

THE FOREGOING sections have demonstrated the growing appreciation of the fundamental necessity for market research as a basis for planning and carrying on production and distribution activities. For many years the larger productive and distributive organizations, and the public utilities service organizations, have maintained trained market research staffs and individually have progressively developed an effective technique for providing them with essential measurements of the existing and potential markets for their specific goods or services.

### **SERVICE AGENCIES**

THE UNITED States Department of Commerce maintains a Bureau of Foreign and Domestic Commerce which has done and is doing most constructive work in market analysis. It has the cooperation and support of the Chamber of Commerce of the United States and its widespread membership of organizations and individual business men.

The Chamber of Commerce of the United States maintains a Domestic Distribution Department which is at the service of its membership. This department has initiated and conducted many large conferences of business men; active committees have conducted investigations and formulated reports on specific distribution problems. There are also the Department of Manufacturers, of Foreign Commerce, Trade Association Service and Agricultural Service, all conducting similar specific activities in the interest of industry and trade.

The Departments of Labor, Agriculture, and Commerce of the Federal Government periodically make available for general use statistical data based upon the censuses of population, manufactures, domestic and foreign trade, etc.

Trade associations, universities, advertising agencies, and many other independent organizations carry on systematic investigation and publish statistics particular to specific industries or interests.

The Department of Commerce publishes "Market Research Agencies," the last edition of which records some 650 separate research agencies and the publications available from each.

### **TYPES OF SERVICES**

MUCH OF this research is subjective; and in the aggregate it represents considerable duplication of effort on the part of various organizations which derive conclusions from the same basic data. There is

need of a greater degree of correlation of fundamental data and of coordination of market research effort.

In recognition of this need, the Department of Commerce in 1929 issued a "Market Data Handbook of the United States" which shows, by counties and states, data compiled from governmental and private sources, furnishing rough indices of relative market potentiality classified under "General Consumer," "Farm," and "Industrial" markets.

The Department of Commerce also issues the "Statistical Abstract of the United States" which collates from all sources pertinent data as to population, wealth, income, domestic and foreign trade, etc.; the "Commerce Yearbook," which reviews and keeps up to date the trends in the various lines of industry and trade, both domestic and foreign; and regional surveys by homogeneous areas of the country. The biennial "Census of Manufactures" provides data essential to industrial market distribution. The 1930 "Census of Distribution," which will be available in 1931, will furnish for the first time accurate data as to the volume of sales in each city, by commodity lines and by classes of wholesale and retail outlets, and the number of each.

Reports of the Federal Reserve Board, Interstate Commerce Commission and Federal Trade Commission cover in a comprehensive way the major tendencies in finance, transportation and trade.

The National Industrial Conference Board has issued many valuable reports on general industrial economics, costs of living, labor efficiency, foreign trade, etc.

The National Bureau of Economic Research published "Recent Economic Changes in the United States," which is an outstanding record of data and interpretation of the economic activities from 1922 to 1929; and has issued many other reports of value to the distribution field.

The American Management Association, composed of business executives, publishes a valuable series of current discussions of distribution problems. There are numerous other public and private agencies whose publications fulfil special needs.

#### UNIT COSTS DATA

IN ADDITION to the type of data above indicated, there is becoming available an increasing amount of the data as to unit costs of supplying consumer and industrial markets which was referred to in the preceding section. Many specific cost analyses of manufacturers' distributive operations and of wholesale and retail distribution by commodity lines have been made available through the broadminded attitude of individual concerns whose operations have been studied in cooperation with some of the various agencies herein mentioned.

The Department of Commerce and the Chamber of Commerce of the United States publish lists of the most important studies along all the above lines and both have issued special publications which combine in usable form the most essential of this type of information. These are available to business men generally.

#### **ESSENTIAL CHARACTER OF MARKET INFORMATION**

WITH THE increasing requirement for and dependence upon accurate market information and commodity and distributive process cost data, there is developing a keen appreciation of the need of uniformity of definition and terminology, of common denominators and units of measurement, in order to provide accurate and comparable data. This need has not yet been met adequately. Therein lies a real opportunity, if not an obligation, for active constructive leadership on the part of the National Chamber and its constituent and affiliated organizations.

## **XIII. SUMMARY OF TRENDS**

### **POPULATION**

IT HAS been shown that the population of the United States, in general, has homogeneous characteristics, with certain variations of local and regional significance. The trend of growth is toward the larger towns and cities; tending, on the one hand, to concentrate trade in the larger market centers and, on the other hand, to decentralize trade for food and convenience goods, particularly toward suburban communities making up a part of a metropolitan market area.

### **WEALTH AND INCOME**

THERE HAS been a steady increase in the per capita wealth of the country. While this is indicative of investment in greater production capacity, it is not as significant a measure of the purchasing power of the consumer market as is income. The striking increase in per capita income and in purchasing power which has taken place since 1921, has been responsible for dynamic changes in the standards of living.

### **PURCHASING POWER**

THE DISTRIBUTION and utilization of the increased purchasing power, which is now spread over a wider range of individuals and families than ever before, has had an important effect on the quantity and quality of goods required to supply the consumer market. This has led to improvement in quality, with consequent emphasis on the grading or standardizing of raw materials, which is being effected as near as possible to the source of supply. The introduction of new processes of preservation of perishable goods, in particular, is tending to minimize the effect of seasonal variation in production, to standardize manufacturing processes and to simplify distribution operations, thus making for greater regularization of production and employment.

### **GRADING AND STANDARDIZATION**

STANDARDIZED quality, standard packages, etc., are bringing more and more classes of goods into the category of staples, thus lessening the necessity of personal selection and inspection before purchase and the amount of sales work required, and permitting of mail and telephone buying by consumers.

### **CONSUMER BUYING**

THE CONSUMER is becoming a more competent buyer, through intelligent advertising and through education in budgeting expendi-



tures, largely due to domestic science training in the schools, home economics discussion in magazines, and widespread home economics extension work of national organizations in rural areas.

### **DISTRIBUTIVE ORGANIZATION AND METHODS**

ALL THESE factors have had a pronounced effect on the distributive organization and methods. There is clearly evident a decided trend in the direction of large scale marketing. There is a definite trend toward large scale mergers, of varying composition, among department stores, chains, voluntary chains, wholesalers and manufacturers.

Public financing has undoubtedly hastened the development of large scale distribution through making capital available in considerable amounts. This has tended to interest investors and the public in general in the management and financial success of such combinations, has brought about wider appreciation of the fact that the services involved in supplying consumers cost money and require commensurate return; and is tending to raise the quality of personnel and management in the distribution field.

### **LARGE SCALE OPERATION**

THE TREND toward large scale operation is developing along two rather general lines, both striving essentially for the same objectives, and both focusing on the development of more efficient retail outlets.

One of these is the trend toward integrated, financially controlled operation of the various productive and distributive agencies, covering all operations between production of the raw material and delivery of the finished product to consumers. This integration takes various forms as to the functional elements which are merged under one control.

The other form is that of integration of operations without the feature of ownership and financial control of the agencies. This is the recognition of a community of interest between manufacturer, wholesaler and retailer and a coordination of distribution operations through contractual alliance in various combinations between manufacturers, wholesalers and retailers, such as is evidenced in the case of the voluntary chain.

### **OBJECTIVES**

BOTH FORMS are directed toward producing and moving consumer goods in the least time and with the least number of movements from production to consumption, with minimum capital investment in the stocks of goods at any point in the process, and with profit to all concerned.

The relative advantages of these two general forms of integration of operation remain to be demonstrated. They must work out their

own economic destinies. Undoubtedly, in the future each will tend to adopt the organization and operating features of the other which combine best to serve, with mutual advantage and profit, the requirements of particular consumer elements for specific kinds of goods or services.

It seems highly probable that eventually there will be relatively few manufacturers, wholesalers and retailers who are not allied in some way with one of these two general types of large scale distributive organization.

### **Administration Problems of Large Scale Operation**

WITH INCREASE in size, however, has come increase in difficulty of direct central administration and in maintaining intimate touch with consumers and their requirements, which is tending toward decentralization of authority and toward allowing greater administrative autonomy to local units in the organization. This trend is already evident and should develop with growth in size and number of units.

Centralized determination of general policies, based on a coordination of the efforts of a central research and advisory staff with those of the administrative executives of the units and of divisional area supervisors where the organization is large and the units scattered, will probably characterize future developments in large scale integrated distribution operation.

Some such plan of organization is essential to developing and maintaining local consumer good will, to providing the management with an accurate measure of their varying local requirements, and to building up an efficient administration.

These trends are developing the need for higher grade executive and well-trained subordinate personnel, which is one of the serious problems of the future.

### **CONSUMPTION FACTS THE BASIS FOR EFFICIENT BUSINESS OPERATION**

These trends are bringing about a better conception of the true function of distribution; and of the fact that definite knowledge of the consumption, actual and potential, of specific commodities, by communities and by groups of consumers, is the only sound basis on which production can be based.

Also they are bringing about appreciation of the fact that markets are not static; that analyses of markets, of purchasing power, standards of living, and consumer initiative in selecting from competitive goods all require continuous study and revaluation of the changing facts.

There has been of late a decided trend in greater appreciation of the fact that the efficiency of distribution agencies and methods has been, and is, susceptible of great improvement. There are becoming evi-

dent, through study of markets and analysis of distribution operations and costs, tremendous opportunities for cutting waste, reducing distribution costs, and minimizing the capital investment in goods at all points along the line of production and distribution, thus releasing capital for other and more productive uses and more nearly synchronizing production with consumption.

### Conclusions

All the trends which have developed in the foregoing analysis appear to focus on three essential requirements:

1. The allocation and evaluation of the potentialities of each local market for the consumption of goods, by commodity lines.
2. The efficiency of retailing outlets in supplying them.
3. The economic adjustment of all other distribution and production planning and activities to the efficient retailing of the goods, in accordance with the effective demand which can be developed in each local market.

The facts presented in this report indicate clearly the vital importance of quantitative and qualitative analysis of the individual markets for consumer goods.

With the growth of large scale production and distribution, the necessity of accurate allocation and evaluation of local markets and by specific lines of goods is becoming of increasing importance.

More accurate appraisal of market potentials should tend toward an equilibrium between production and consumption, with greater stability of production and employment in all lines of industry and trade.

While market research has been attaining considerable proportions within the last few years, there is lack of suitable objective correlation of existing data, and there is considerable duplication of individual effort directed toward common ends, which would seem to require, in the general interest of trade, and of society as a whole, a greater degree of coordination and cooperation.

It would seem that the development of basic facts which are of common necessity to various lines of business should be undertaken by some central coordinating agency, and that there is need of definite leadership in bringing about more effective organization and dissemination of basic information as to (1) markets, (2) purchasing power, (3) costs of serving the markets by various methods, and (4) other related factors.

As representing the collective business interests of the country, the Chamber of Commerce of the United States can well take a greater degree of leadership than heretofore.

If such facts and action are essential in order to attain maximum efficiency of serving local, regional, and national markets, the same opportunity, and even obligation in the common interest, would seem to exist in the case of international markets and trade.

Therein appears to be a field in which the International Chamber of Commerce could well assume leadership, at least to the extent of endeavoring to bring about a definition of problem, uniformity of terminology and a coordination of organized effort along lines which have been indicated.



**APPENDIX I**  
**GROWTH IN POPULATION OF THE**  
**UNITED STATES**

Census year	Population		Increase each 10 years	
	Number of people	Per square mile	In number of people	In percent
1790.....	3,929,214	4.5	.....	.....
1800.....	5,308,483	6.1	1,379,269	35.1
1810.....	7,239,881	4.3	1,931,398	36.4
1820.....	9,638,453	5.5	2,398,572	33.1
1830.....	12,866,020	7.3	3,227,567	33.5
1840.....	17,069,453	9.7	4,203,433	32.7
1850.....	23,191,876	7.9	6,122,423	35.9
1860.....	31,443,321	10.6	8,251,445	35.6
1870.....	38,558,371	13.0	7,115,050	22.6
1880.....	50,155,783	16.9	11,597,412	30.1
1890.....	62,947,714	21.2	12,791,931	25.5
1900.....	75,994,575	25.6	13,046,861	20.7
1910.....	91,972,266	30.9	15,977,691	21.0
1920.....	105,710,620	35.5	13,738,354	14.9
1930.....	122,775,046	41.3	17,064,426	16.1

NOTE: The population per square mile is based upon the land area, which is 2,973,774 square miles.

The interval between the 1910-1920 and 1920-1930 censuses was not exactly 120 months, or 10 years. If based upon exact intervals, the rates of increase are:

from 1910 to 1920.....15.4%  
from 1920 to 1930.....15.7%

Source: U. S. Census Bureau data in:  
Statistical Abstract of the United States, 1929.  
Survey of Current Business, August, 1930 issue.

APPENDIX II  
**POPULATION OF CONTINENTAL UNITED STATES**  
 (BY STATES ARRANGED IN ORDER OF THE PERCENTAGE  
 INCREASE BETWEEN 1920 AND 1930)

Rank State	1930 Population	Increase Over 1920	
		Number	Per Cent
1. California.....	5,677,251	2,250,390	65.7
2. Florida.....	1,468,211	499,741	51.6
3. Michigan.....	4,842,325	1,173,913	32.0
4. Arizona.....	435,573	101,411	30.3
5. New Jersey.....	4,041,334	885,434	28.1
6. Texas.....	5,824,715	1,161,487	24.9
7. North Carolina.....	3,170,276	611,153	23.9
8. Oregon.....	953,786	170,397	21.8
9. New York.....	12,588,066	2,202,839	21.2
10. West Virginia.....	1,729,205	265,504	18.1
11. Oklahoma.....	2,396,040	367,757	18.1
12. Illinois.....	7,630,654	1,145,374	17.7
13. Nevada.....	91,058	13,651	17.6
14. New Mexico.....	423,317	62,967	17.5
15. Louisiana.....	2,101,593	303,084	16.9
16. Connecticut.....	1,606,903	226,272	16.4
17. Wyoming.....	225,565	31,163	16.0
18. Ohio.....	6,646,697	887,303	15.4
19. Washington.....	1,563,396	206,775	15.2
20. Rhode Island.....	687,497	83,100	13.7
21. Utah.....	507,847	58,451	13.0
22. Alabama.....	2,646,248	298,074	12.7
23. Maryland.....	1,631,526	181,865	12.5
24. Mississippi.....	2,009,821	219,203	12.2
25. Tennessee.....	2,616,556	278,671	11.9
26. Wisconsin.....	2,939,006	306,939	11.7
27. District of Columbia.....	486,869	49,298	11.3
28. Pennsylvania.....	9,631,350	911,333	10.5
29. Massachusetts.....	4,249,614	397,258	10.3
30. Indiana.....	3,238,503	308,113	10.5
31. Colorado.....	1,035,791	96,162	10.2
32. South Dakota.....	692,849	56,302	8.8
33. Kentucky.....	2,614,589	197,959	8.2
34. Minnesota.....	2,563,953	176,828	7.4
35. Delaware.....	238,380	15,377	6.9
36. Missouri.....	3,629,367	225,312	6.6
37. Kansas.....	1,880,999	111,742	6.3
38. Nebraska.....	1,377,963	81,591	6.3
39. Arkansas.....	1,854,482	102,278	5.8
40. North Dakota.....	680,845	33,973	5.3
41. New Hampshire.....	465,293	22,210	5.0
42. Virginia.....	2,421,851	112,664	4.9
43. Maine.....	797,423	29,409	3.8
44. South Carolina.....	1,738,765	55,041	3.3
45. Idaho.....	445,032	13,166	3.0
46. Iowa.....	2,470,939	66,918	2.8
47. Vermont.....	359,611	7,183	2.0
48. Georgia.....	2,908,506	12,674	0.4
49. Montana.....	537,606	11,283*	2.1*

\* Decrease.

APPENDIX III

AREA—POPULATION—DENSITY OF POPULATION  
(FOR CONTINENTAL UNITED STATES, BY STATES, 1930)\*

DIVISION AND STATE	POPULATION			AREA		DENSITY
	1930	Percent of U. S. total	Percent increase 1920-1930	Land area in square miles 1930†	Percent	Population per square mile, 1930
United States.....	122,775,046	.....	16.1	2,973,776	.....	41.3
<b>GEOGRAPHIC DIVISIONS:</b>						
New England.....	8,166,341	6.65	10.3	61,976	2.1	131.8
Middle Atlantic.....	26,260,750	21.39	18.0	100,000	3.4	262.6
East North Central.....	25,297,185	20.60	17.8	245,564	8.2	103.0
West North Central.....	13,296,915	10.83	6.0	510,804	17.2	26.0
South Atlantic.....	15,793,589	12.86	12.9	269,073	9.0	58.7
East South Central.....	9,887,214	8.05	11.2	179,509	6.0	55.1
West South Central.....	12,176,830	9.93	18.9	429,746	14.5	28.3
Mountain.....	3,701,789	3.02	11.0	859,009	28.9	4.3
Pacific.....	8,194,433	6.67	47.2	318,095	10.7	25.8
<b>NEW ENGLAND:-</b>						
Maine.....	797,423	0.65	3.8	29,895	1.00	26.7
New Hampshire.....	465,293	0.38	5.0	9,031	.30	51.5
Vermont.....	359,611	0.29	2.0	9,124	.31	39.4
Massachusetts.....	4,249,614	3.46	10.3	8,039	.27	528.6
Rhode Island.....	687,497	0.56	13.7	1,067	.04	644.3
Connecticut.....	1,606,903	1.31	16.4	4,820	.16	333.4
<b>MIDDLE ATLANTIC:</b>						
New York.....	12,588,066	10.26	21.2	47,654	1.60	264.2
New Jersey.....	4,041,334	3.29	28.1	7,514	.25	537.8
Pennsylvania.....	9,631,350	7.86	10.5	44,832	1.51	214.8
<b>EAST NORTH CENTRAL:</b>						
Ohio.....	6,646,697	5.42	15.4	40,740	1.37	163.1
Indiana.....	3,238,503	2.64	10.5	36,045	1.21	89.8
Illinois.....	7,030,654	6.23	17.7	56,043	1.88	136.2
Michigan.....	4,842,325	3.94	32.0	57,840	1.93	84.2
Wisconsin.....	2,939,006	2.39	11.7	55,256	1.86	53.2
<b>WEST NORTH CENTRAL:</b>						
Minnesota.....	2,563,953	2.09	7.4	80,858	2.72	31.7
Iowa.....	2,470,939	2.01	2.8	55,586	1.88	44.5
Missouri.....	3,629,367	2.96	6.6	68,727	2.31	52.8
North Dakota.....	680,845	0.55	5.3	70,183	2.36	9.7
South Dakota.....	692,849	0.56	8.8	76,868	2.58	9.0
Nebraska.....	1,377,963	1.12	6.3	76,808	2.58	17.9
Kansas.....	1,880,999	1.53	6.3	81,774	2.75	23.0
<b>SOUTH ATLANTIC:</b>						
Delaware.....	238,380	0.19	6.9	1,965	.08	121.3
Maryland.....	1,631,526	1.33	12.5	9,941	.33	164.1
District of Columbia.....	486,869	0.40	11.3	62	.002	7,852.7
Virginia.....	2,421,851	1.97	4.9	40,262	1.35	60.2
West Virginia.....	1,729,205	1.41	18.1	24,022	.81	72.0
North Carolina.....	3,170,276	2.58	23.9	48,740	1.64	65.0
South Carolina.....	1,738,765	1.42	3.3	30,495	1.02	57.0
Georgia.....	2,908,506	2.37	0.4	58,725	1.97	49.5
Florida.....	1,468,211	1.20	51.6	54,861	1.84	26.8
<b>EAST SOUTH CENTRAL:</b>						
Kentucky.....	2,614,589	2.13	8.2	40,181	1.35	65.0
Tennessee.....	2,616,556	2.13	11.9	41,687	1.40	62.8
Alabama.....	2,646,248	2.16	12.7	51,279	1.72	51.6
Mississippi.....	2,009,821	1.64	12.2	46,362	1.56	43.4
<b>WEST SOUTH CENTRAL:</b>						
Arkansas.....	1,854,482	1.51	5.8	52,525	3.83	35.3
Louisiana.....	2,101,593	1.71	16.9	45,409	1.53	46.3
Oklahoma.....	2,396,040	1.95	18.1	69,414	2.33	34.5
Texas.....	5,824,715	4.74	24.9	262,398	8.82	22.2
<b>MOUNTAIN:</b>						
Montana.....	537,606	0.44	2.1	†146,131	4.91	3.7
Idaho.....	445,032	0.36	3.0	†83,354	2.80	5.3
Wyoming.....	225,565	0.18	16.0	†97,548	3.28	2.3
Colorado.....	1,035,791	0.84	10.2	103,568	3.48	10.0
New Mexico.....	423,317	0.34	17.5	122,503	4.12	3.5
Arizona.....	435,573	0.35	30.3	113,810	3.83	3.8
Utah.....	507,847	0.41	13.0	82,184	2.76	6.2
Nevada.....	91,058	0.07	17.6	109,821	3.69	0.8
<b>PACIFIC:</b>						
Washington.....	1,563,396	1.27	15.2	66,836	2.25	23.4
Oregon.....	953,786	0.78	21.8	95,607	3.22	10.0
California.....	5,677,251	4.62	65.7	155,652	5.23	36.5

\* 1930 Census—Final figures. † From "Statistical Abstract of the United States 1929" p. 2

APPENDIX IV

III. TOTAL POPULATION BY STATES FOR CITIES OF GIVEN SIZES

State	Cities 100,000 and over				Cities 25,000 to 100,000			
	Num-ber	1930 Population	Increase over 1920		Num-ber	Population	Increase over 1920	
			Number	Percent			Number	Percent
Alabama.....	1	257,657	78,851	44.1	2	134,352	30,111	28.8
Arizona.....					2	80,148	30,803	62.4
Arkansas.....					2	113,108	19,096	20.3
California.....	5	2,444,411	1,014,525	70.9	15	730,698	257,221	20.3
Colorado.....	1	287,644	31,153	12.1	2	83,325	10,170	13.9
Connecticut.....	4	574,699	38,856	7.2	7	273,108	54,155	24.7
Delaware.....	1	106,632	3,536*	3.3*				
District of Columbia.....	1	486,869	49,298	11.3				
Florida.....	3	341,657	168,920	97.8	4	124,999	61,786	97.7
Georgia.....	1	270,367	69,751	34.8	4	242,199	22,279	10.1
Illinois.....	2	3,480,117	702,291	25.2	22	1,001,415	243,682	32.2
Indiana.....	5	787,160	174,792	25.2	12	473,905	108,321	29.6
Iowa.....	1	142,469	16,001	12.7	9	406,221	49,957	14.0
Kansas.....	2	233,366	59,972	34.6	2	91,085	17,765	24.2
Kentucky.....	1	307,808	72,917	31.0	5	203,301	35,865	21.4
Louisiana.....	1	455,792	68,573	17.7	3	134,126	55,795	71.2
Maine.....					3	134,507	7,466	5.8
Maryland.....	1	805,753	71,927	9.8	2	68,574	10,673	18.4
Massachusetts.....	9	1,781,987	68,165	3.3	17	892,147	98,948	11.6



Michigan.....	3	1,899,057	676,146	55.3	14	710,870	183,323	34.7
Minnesota.....	3	837,588	123,391	17.3	2	80,461	34,245	74.1
Mississippi.....	2	1,221,516	124,209	11.3	4	197,710	43,446	21.7
Missouri.....	2	1,221,516	124,209	11.3	2	68,093	2,361	3.5
Montana.....	1	75,919	20,971	38.2	1	75,919	20,971	38.2
Nebraska.....	3	133,525	4,595	3.5	3	133,525	4,595	3.5
New Hampshire.....	6	1,251,090	71,207	6.0	18	863,119	162,292	23.1
New Jersey.....	1	26,526	11,369	75.0	1	26,526	11,369	75.0
New Mexico.....	7	8,452,137	1,550,171	22.4	16	798,617	116,615	17.1
New York.....	8	419,798	182,889	30.7	8	419,798	182,889	30.7
North Carolina.....	1	28,609	6,648	30.3	1	28,609	6,648	30.3
North Dakota.....	8	2,659,026	400,300	17.7	18	733,075	182,646	33.2
Ohio.....	2	326,664	163,294	99.9	2	58,337	11,484	24.5
Oklahoma.....	1	301,890	43,602	16.9	1	26,266	8,587	46.8
Oregon.....	5	3,003,811	232,450	9.2	20	1,032,590	137,615	15.3
Pennsylvania.....	1	252,386	14,791	6.2	5	224,060	32,480	16.9
Rhode Island.....	4	170,338	19,092	12.5	4	170,338	19,092	12.5
South Carolina.....	1	33,360	8,158	32.4	1	33,360	8,158	32.4
South Dakota.....	4	630,538	214,132	51.4	1	25,073	12,631	101.5
Tennessee.....	5	1,067,405	424,732	66.1	10	449,450	160,291	61.0
Texas.....	1	140,184	22,074	18.7	1	40,243	7,439	22.7
Utah.....	2	311,851	24,407	8.5	5	217,780	15,873	7.8
Virginia.....	3	588,433	71,699	13.8	2	61,100	7,871	14.7
Washington.....	5	256,206	62,294	32.1	5	256,206	62,294	32.1
West Virginia.....	1	572,557	115,410	25.2	12	480,535	100,497	26.2
Wisconsin.....	93	36,280,521	6,954,471	23.7	270	12,398,878	2,649,805	27.2
Total.....								

\* Decrease.

Four states, Idaho, Nevada, Vermont and Wyoming, had no cities of 25,000 or above. Source: 1930 Census: Preliminary figures.

REVISED FIGURES APPENDIX ON PAGE 11.

APPENDIX V  
**NATIONAL WEALTH OF THE UNITED STATES**  
 Thousands of Dollars

Form of wealth	1922	1912	1914	1900	Increase in wealth percent		
					1912-1922	1904-1912	1900-1904
Total.....	\$320,803,862	\$186,299,664	\$107,104,194	\$88,517,307	72.2	73.9	21.0
Real prop. and imp. tax'd.....	\$155,908,625	\$96,923,406	\$55,510,228	\$46,324,839	60.9	74.6	19.8
Real prop. and imp. exempt.....	20,505,819	12,313,520	6,831,245	6,212,789	66.5	80.3	10.0
Livestock.....	5,807,104	6,238,389	4,073,792	3,306,473	6.9	53.1	23.2
Farm impl. and machinery.....	2,604,638	1,368,225	844,990	749,776	90.4	61.9	12.7
Manuf. mach., tools, impl. ....	15,783,260	6,091,451	3,297,754	2,541,047	159.1	84.7	29.8
Railroads and their equip. ....	19,950,800	16,148,532	11,244,752	9,035,732	23.5	43.6	24.4
Motor vehicles.....	4,567,407	.....	.....	.....	.....	.....	.....
Street railways, etc.....	15,414,447	10,265,207	4,840,547	3,495,228	50.2	112.1	38.5
All other.....	80,261,762	36,950,934	20,460,886	16,851,423	117.2	80.6	21.5

Source: Bureau of the Census, Statistical Abstract of U. S. p. 293.

**APPENDIX VI**  
**NATIONAL REALIZED INCOME**

Year	Total income	Per capita income	
		In current dollars	In 1913 dollars
1909 . . . . .	\$30,000,000,000	\$327	\$346
1910 . . . . .	31,000,000,000	340	350
1911 . . . . .	32,000,000,000	339	351
1912 . . . . .	34,000,000,000	357	364
1913 . . . . .	36,000,000,000	368	368
1914 . . . . .	36,000,000,000	360	356
1915 . . . . .	37,000,000,000	371	365
1916 . . . . .	43,000,000,000	425	389
1917 . . . . .	51,000,000,000	497	390
1918 . . . . .	60,000,000,000	579	385
1919 . . . . .	66,000,000,000	628	362
1920 . . . . .	74,000,000,000	695	353
1921 . . . . .	63,000,000,000	585	339
1922 . . . . .	66,000,000,000	601	370
1923 . . . . .	74,000,000,000	667	405
1924 . . . . .	77,000,000,000	680	412
1925 . . . . .	82,000,000,000	712	421
1926 . . . . .	86,000,000,000	735	433
1927 . . . . .	88,000,000,000	748	448
1928 . . . . .	89,000,000,000	749	452

*Source:* National Bureau of Economic Research.  
Pages 87 and 94 of "National Income and Its Purchasing Power" (1930).

APPENDIX VII  
**NATIONAL INCOME, BY GROUPS OF INDUSTRIES**  
**PERCENTAGE DISTRIBUTION**

Year	Agriculture	Manufacturing	Mines, quarries and oil wells	Construction	Banking	Mercantile	Government	Transportation	Unclassified	Miscellaneous	Total
1909.....	16.85	18.51	2.81	5.72	1.14	12.45	5.25	8.68	19.31	9.28	100.00
1910.....	16.60	19.74	2.92	5.03	1.24	11.88	5.34	8.89	18.96	9.40	100.00
1911.....	15.11	19.62	2.86	5.04	1.28	12.66	5.55	9.12	19.28	9.48	100.00
1912.....	15.58	20.13	2.96	5.13	1.26	11.89	5.48	8.98	19.31	9.28	100.00
1913.....	14.37	20.52	3.23	4.27	1.27	12.56	5.55	8.99	19.95	9.28	100.00
1909-1913 aver.....	15.70	19.70	2.96	5.04	1.28	12.29	5.43	.....	19.36	9.34	.....
1920.....	14.94	26.39	3.18	2.56	1.05	11.79	7.18	9.75	13.13	10.02	100.00
1921.....	10.99	20.95	2.91	2.75	1.34	13.32	8.88	9.61	18.04	11.21	100.00
1922.....	11.07	21.17	2.62	3.33	1.41	13.17	8.79	8.89	18.73	10.82	100.00
1923.....	10.80	22.65	3.22	3.31	1.34	14.49	7.78	8.75	17.56	10.10	100.00
1924.....	10.79	21.10	2.64	3.86	1.33	14.33	7.64	8.47	19.78	10.07	100.00
1925.....	11.09	20.59	2.65	4.22	1.34	14.64	7.48	8.22	20.08	9.69	100.00
1926.....	9.60	.....	.....	.....	1.36	14.54	.....	.....	.....	.....	100.00
1927.....	9.49	.....	.....	.....	.....	14.46	.....	.....	.....	.....	100.00
1928.....	9.27	.....	.....	.....	.....	14.69	.....	.....	.....	.....	100.00

Source: The National Income and Its Purchasing Power, pp. 98, W. I. King.



APPENDIX VIII  
ANNUAL INCOME

(Its relation to number "gainfully occupied"  
of the three economic classes)

**Entrepreneurs, Salaried Employees and Wage Employees**

Year	Entrepreneurs		Salaried employees		Wage employees	
	Percent of number of nation's gainfully occupied	Percent of national income received	Percent of number of nation's gainfully occupied	Percent of national income received	Percent of number of nation's gainfully occupied	Percent of national income received
1909	29	49	13	15	58	36
1910	28	48	13	15	58	36
1911	27	48	13	15	56	36
1912	27	48	14	15	59	36
1913	27	47	14	15	59	36
1914	27	48	14	16	59	35
1915	26	48	14	16	59	35
1916	26	48	14	15	59	36
1917	25	50	16	15	59	35
1918	24	46	22	19	54	34
1919	25	46	20	18	55	35
1920	25	43	17	16	58	40
1921	25	43	17	19	58	37
1922	24	43	17	18	59	37
1923	24	42	17	18	59	39
1924	23	42	17	18	59	38
1925	23	43	18	18	59	38
1926	22	42	18	19	60	38
1927	22	42	18	20	60	37

*Source:* National Bureau of Economic Research.

APPENDIX IX

ANNUAL VOLUME OF RETAIL SALES IN THE  
UNITED STATES

*Retail Sales*

Year	Total	Per capita	
		In current dollars	In 1913 dollars
1909.....	\$18,000,000,000	\$202	\$212
1910.....	20,000,000,000	217	222
1911.....	20,000,000,000	214	221
1912.....	21,000,000,000	223	228
1913.....	22,000,000,000	228	228
1914.....	22,000,000,000	220	218
1915.....	22,000,000,000	214	213
1916.....	24,000,000,000	233	213
1917.....	38,000,000,000	367	285
1918.....	41,000,000,000	390	257
1919.....	43,000,000,000	411	234
1920.....	45,000,000,000	423	214
1921.....	41,000,000,000	379	224
1922.....	44,000,000,000	400	253
1923.....	51,000,000,000	460	288
1924.....	49,000,000,000	428	267
1925.....	53,000,000,000	465	282
1926.....	55,000,000,000	472	284
1927.....	57,000,000,000	482	298
1928.....	58,000,000,000	486	299

NOTE: The above table gives the National Bureau of Economic Research estimates of total retail trade volume in the United States, from 1909 to 1928, inclusive.

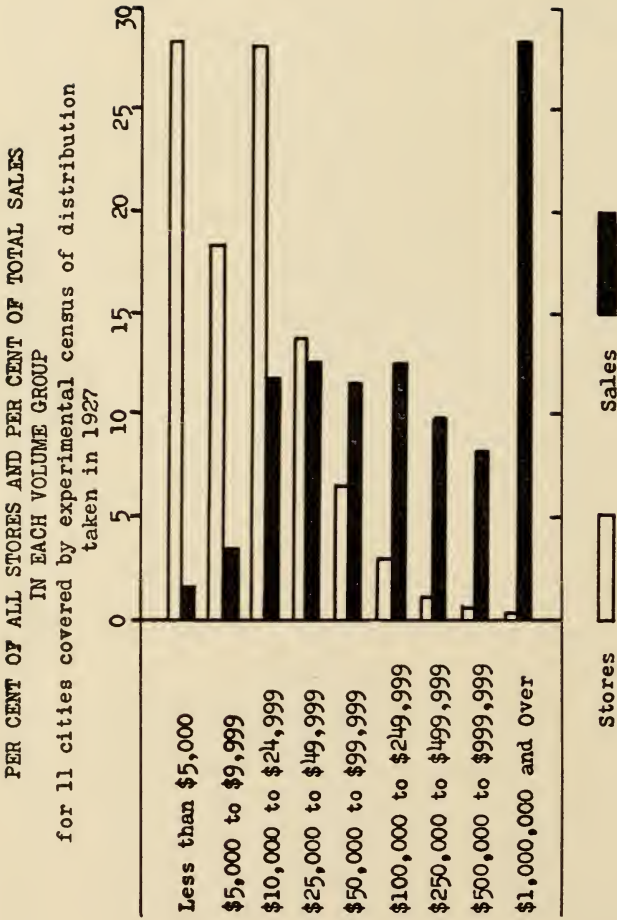
It will be seen that, in constant or 1913 dollars, per capital retail sales of the most recent years have averaged increase of 35% above 1909-1910-1911.

**APPENDIX X**  
**PER CAPITA SALES BY COMMODITIES**

(FOR ELEVEN CITIES COVERED IN TRIAL DISTRIBUTION  
CENSUS FOR 1926)

Arms and Ammunition.....	\$0.09	Junk .....	.67
Art Goods and Antiques.....	2.56	Live Stock.....	.23
Automobiles, Trucks and Trac- tors .....	40.11	Lumber and Planing Mill Prod- ucts .....	\$11.67
Automobile Parts and Accessories	14.43	Other Building Materials.....	11.01
Agricultural Implements.....	.51	Meals .....	39.46
Bakery Products.....	11.17	Meat and Poultry.....	27.17
Books, Magazines and Stationery	6.82	Men's Furnishings.....	13.42
Boots, Shoes and Other Footwear	19.01	Millinery and Milliners' Supplies	6.46
Calculating Machines and Sup- plies .....	.62	Milk, Butter, Cheese and Eggs..	14.80
Cameras and Photographic Sup- plies .....	.60	Motorcycles, Bicycles and Acces- sories .....	.44
Children's and Infants' Wear...	3.52	Musical Instruments and Sup- plies .....	5.52
Cigars, Cigarettes, Tobacco and Smoking Supplies.....	10.49	Office Equipment and Supplies..	6.84
Clothing, Men's and Boys'.....	24.01	Optical Goods.....	.76
Coal and Wood.....	12.51	Paint, Varnish and Glass.....	3.05
Confectionery, Ice Cream and Soft Drinks.....	14.61	Paper and Paper Goods.....	.47
Crockery, China and Glassware	2.89	Piece Goods—Cotton.....	4.06
Drugs, Chemicals and Prescrip- tions .....	16.12	Piece Goods—Rayon.....	1.02
Dry Goods and Notions.....	24.57	Piece Goods—Silk.....	4.95
Electrical Appliances and Sup- plies .....	6.16	Piece Goods—Wool.....	1.12
Fertilizer .....	.05	Plumbing and Heating Fixtures and Supplies.....	5.38
Fish and Other Sea Food (fresh)	1.50	Radio Sets and Supplies.....	3.33
Flowers, Plants and Seeds.....	3.36	Rubber Goods (not incl. tires and tubes).....	.51
Fruits and Nuts.....	4.53	Scientific Apparatus used by Professional Men.....	1.03
Furniture (house).....	22.71	Sporting Goods.....	1.82
Fur Goods.....	4.79	Stoves and Ranges (incl. Coal, Electric, Gas and Oil).....	2.22
Gasoline and Other Petroleum Products .....	20.27	Toilet Articles and Preparations	4.59
Groceries and Delicatessen....	59.46	Toys and Games.....	2.02
Hardware, Tools and Machinery	12.37	Trunks and Leather Goods....	3.12
Harness and Saddlery.....	.20	Typewriters and Supplies.....	1.49
Hats and Caps, Men's and Boys'	2.24	Vegetables .....	4.57
Hay, Grain and Feed.....	1.93	Women's Hosiery.....	5.35
Housefurnishings .....	21.76	Women's Outerwear.....	29.48
Household Supplies.....	2.90	Women's Underwear.....	7.06
Ice .....	1.11	Unclassified .....	16.26
Jewelry and Silverware.....	10.52	<b>Total .....</b>	<b>621.90</b>

Sales figures as shown above are not consumption figures; that is, these sales are by retail merchants in each and all of the eleven cities, not only to the cities' inhabitants but to all who entered the stores.



Prepared by the  
Domestic Distribution Department  
of the  
**CHAMBER OF COMMERCE OF THE UNITED STATES**  
Washington, D.C.



# RETAIL STORE MORTALITY

## CUMULATIVE OVER 10 YEAR PERIOD 1918-1928

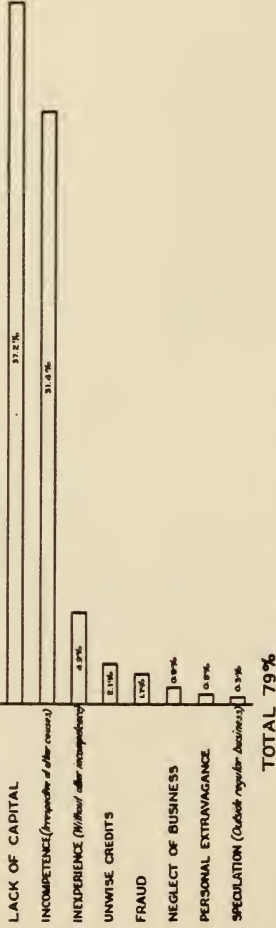
DRUG STORES		HARDWARE STORES	
	ALL DRUG STORES		ALL HARDWARE STORES
1 ST YEAR	26.6%	1 ST YEAR	
2 ND YEAR	34.6%	2 ND YEAR	34.5%
3 RD YEAR	44.8%	3 RD YEAR	49.3%
4 TH YEAR	50.0%	4 TH YEAR	59.0%
5 TH YEAR	52.9%	5 TH YEAR	61.9%
6 TH YEAR	58.2%	6 TH YEAR	65.9%
7 TH YEAR	61.1%	7 TH YEAR	72.8%
8 TH YEAR	71.4%	8 TH YEAR	79.5%
END OF 10 <sup>TH</sup> YEAR		END OF 10 <sup>TH</sup> YEAR	87.0%
GROCERY STORES		SHOE STORES	
	ALL GROCERY STORES		ALL SHOE STORES
1 ST YEAR	60.0%	1 ST YEAR	
2 ND YEAR	73.8%	2 ND YEAR	43.8%
3 RD YEAR	81.7%	3 RD YEAR	47.8%
4 TH YEAR	84.5%	4 TH YEAR	57.4%
5 TH YEAR	87.3%	5 TH YEAR	74.2%
6 TH YEAR	89.8%	6 TH YEAR	76.8%
7 TH YEAR	92.7%	7 TH YEAR	80.9%
8 TH YEAR	95.0%	8 TH YEAR	82.5%
END OF 10 <sup>TH</sup> YEAR		END OF 10 <sup>TH</sup> YEAR	

Source - University of Buffalo, Retail Trade Mortality Study, 1929  
 CONCERNING DISTRIBUTION, RESEARCH AND  
 CHAMBER OF COMMERCE OF THE UNITED STATES

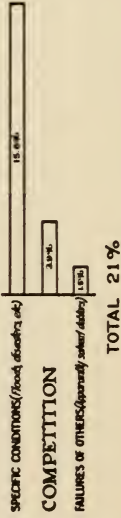
# IS COMPETITION THE CAUSE OF FAILURES?

## CAUSES OF FAILURES IN 1929

### DUE TO FAULTS OF THOSE FAILING



### NOT DUE TO FAULTS OF THOSE FAILING



Source - Bradstreet's

U.S. BUREAU OF ECONOMIC RESEARCH  
 U.S. DEPARTMENT OF COMMERCE  
 BUREAU OF BUSINESS  
 COMMUNITY OF COMMERCE OF THE UNITED STATES

